

## SEQUENCE LISTING

<110> University of Utah Research Foundation  
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<120> B-Superfamily Conotoxins

<130> 2314-248

<150> US 60/264323

<151> 2001-01-29

<160> 340

<170> PatentIn version 3.0

<210> 1

<211> 456

<212> DNA

<213> Conus flavidus

<220>

<221> CDS

<222> (7)..(255)

<400> 1

ggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg tgg 48  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp  
 1 5 10

att aca gcc cct ctg tct gaa ggt ggt aaa ttg aac gac gta att cgg 96  
 Ile Thr Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg  
 15 20 25 30

ggt ttg gtg cca gat gac tta acc cca cag ctt att ttg caa agt ctg 144  
 Gly Leu Val Pro Asp Asp Leu Thr Pro Gln Leu Ile Leu Gln Ser Leu  
 35 40 45

gat tcc cgt cgt cat gat cac ggc att cgt ccg aag aga gtc gac ata 192  
 Asp Ser Arg Arg His Asp His Gly Ile Arg Pro Lys Arg Val Asp Ile  
 50 55 60

tgt aac tgg agg ata tgt gca cca aac cca ttg aga cga cat gat ctt 240  
 Cys Asn Trp Arg Ile Cys Ala Pro Asn Pro Leu Arg Arg His Asp Leu  
 65 70 75

aag aaa gga aac aat tgacgtcaga caaccgccac aacttgagta cgacatcggt 295  
 Lys Lys Gly Asn Asn  
 80

aatacgactt cagcaaatat gaaattttca gcatcactgt gggtgtgaag aaatcagttg 355

ctttaaaagg ttggatttgt ccttggttaa gccgttgtac tgatgacatc tctgcactat 415

gaaataaagc tgatgtgaca aactaaaaaa aaaaaaaaaa a 456

<210> 2

<211> 83

<212> PRT

<213> Conus flavidus

<400> 2  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1 5 10 15  
 Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
 20 25 30  
 Val Pro Asp Asp Leu Thr Pro Gln Leu Ile Leu Gln Ser Leu Asp Ser  
 35 40 45  
 Arg Arg His Asp His Gly Ile Arg Pro Lys Arg Val Asp Ile Cys Asn  
 50 55 60  
 Trp Arg Ile Cys Ala Pro Asn Pro Leu Arg Arg His Asp Leu Lys Lys  
 65 70 75 80

Gly Asn Asn

<210> 3  
 <211> 33  
 <212> PRT  
 <213> Conus flavidus  
 <220>  
 <221> PEPTIDE  
 <222> (1)..(33)  
 <223> Xaa at residues 7, 20 and 22 may be Pro or hydroxy-Pro; Xaa at re  
 sidue 15 may be Trp (Dor L) or bromo-Trp (Dor L)

<400> 3  
 His Asp His Gly Ile Arg Xaa Lys Arg Val Asp Ile Cys Asn Xaa Arg  
 1 5 10 15  
 Ile Cys Ala Xaa Asn Xaa Leu Arg Arg His Asp Leu Lys Lys Gly Asn  
 20 25 30

Asn

<210> 4  
 <211> 374  
 <212> DNA  
 <213> Conus miles

<220>  
 <221> CDS  
 <222> (7)..(315)

<400> 4  
 ggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg gtg 48  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Val  
 1 5 10  
 ggg ctc acc gtc ggg agt cac gtc cat cgg tct cac agt cct aca tcg 96  
 Gly Leu Thr Val Gly Ser His Val His Arg Ser His Ser Pro Thr Ser  
 15 20 25 30  
 cgc agc cat ggt gat gac tcc att cat gac aag acg att cat caa cat 144  
 Arg Ser His Gly Asp Asp Ser Ile His Asp Lys Thr Ile His Gln His  
 35 40 45  
 ctg ttt gcc cgt ctt cct ctg gag aac aac gac gac cat cgt tct gtg 192  
 Leu Phe Ala Arg Leu Pro Leu Glu Asn Asn Asp Asp His Arg Ser Val  
 50 55 60

gat ctt cct gca ggg aat ggt gca ggc aac acc aag caa caa gac caa 240  
 Asp Leu Pro Ala Gly Asn Gly Ala Gly Asn Thr Lys Gln Gln Asp Gln  
           65                              70                              75

agt cct cat cat gtg tgt tgt gct att ggt ccg gtt ctt cca ttc tgt 288  
 Ser Pro His His Val Cys Cys Ala Ile Gly Pro Val Leu Pro Phe Cys  
           80                              85                              90

tgt gtc agt tgg ctg cac aaa ctc cat tgaactggcc aatgaaaata 335  
 Cys Val Ser Trp Leu His Lys Leu His  
           95                              100

actcaggaat agacagaaag gcaaaaaaaaa aaaaaaaaaa 374

<210> 5  
 <211> 103  
 <212> PRT  
 <213> Conus miles

<400> 5  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Val Gly Leu  
   1                              5                              10                              15

Thr Val Gly Ser His Val His Arg Ser His Ser Pro Thr Ser Arg Ser  
           20                              25                              30

His Gly Asp Asp Ser Ile His Asp Lys Thr Ile His Gln His Leu Phe  
           35                              40                              45

Ala Arg Leu Pro Leu Glu Asn Asn Asp Asp His Arg Ser Val Asp Leu  
           50                              55                              60

Pro Ala Gly Asn Gly Ala Gly Asn Thr Lys Gln Gln Asp Gln Ser Pro  
   65                              70                              75                              80

His His Val Cys Cys Ala Ile Gly Pro Val Leu Pro Phe Cys Cys Val  
           85                              90                              95

Ser Trp Leu His Lys Leu His  
           100

<210> 6  
 <211> 29  
 <212> PRT  
 <213> Conus miles

<220>  
 <221> PEPTIDE  
 <222> (1)..(29)  
 <223> Xaa at residue 1 is Gln or pyro-Glu; Xaa at residues 6, 15 and 18  
           may be Pro or hydroxy-Pro; Xaa at residue 24 may be Trp (D or L)  
           or bromo-Trp (D or L)

<400> 6  
 Cys Gln Asp Gln Ser Xaa His His Val Cys Cys Ala Ile Gly Xaa Val  
   1                              5                              10                              15

Leu Cys Phe Cys Cys Val Ser Xaa Leu His Lys Leu His  
           20                              25

<210> 7  
 <211> 359  
 <212> DNA

Sequence

<213> Conus miles

<220>

<221> CDS

<222> (7)..(291)

<400> 7

ggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg gtg 48  
Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Val  
1 5 10

ggg ttc acc gtc ggg ggt cac gtc cat cgg tct cac agt cct aca tcg 96  
Gly Phe Thr Val Gly Gly His Val His Arg Ser His Ser Pro Thr Ser  
15 20 25 30

cgc agc cat ggt gat gac tcc att cat gac aag acg att cat caa cat 144  
Arg Ser His Gly Asp Asp Ser Ile His Asp Lys Thr Ile His Gln His  
35 40 45

ctg ttt gcc cgt ctt cct cag gag aac aac gac gac cat cgt tct gtg 192  
Leu Phe Ala Arg Leu Pro Gln Glu Asn Asn Asp Asp His Arg Ser Val  
50 55 60

gat ctt cct gca ggg act agc gca ggc gac atg aaa cca caa cgc caa 240  
Asp Leu Pro Ala Gly Thr Ser Ala Gly Asp Met Lys Pro Gln Arg Gln  
65 70 75

aga cgt ctc tgc tgc atc ttt gcc ccg att ctt tgg ttc tgt tgt cac 288  
Arg Arg Leu Cys Cys Ile Phe Ala Pro Ile Leu Trp Phe Cys Cys His  
80 85 90

ggt taacagctca aattacactg cactggccga ttgaaagaac tgcaataaac 341  
Gly  
95

ggaaaaaaaa aaaaaaaaaa 359

<210> 8

<211> 95

<212> PRT

<213> Conus miles

<400> 8

Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Val Gly Phe  
1 5 10 15

Thr Val Gly Gly His Val His Arg Ser His Ser Pro Thr Ser Arg Ser  
20 25 30

His Gly Asp Asp Ser Ile His Asp Lys Thr Ile His Gln His Leu Phe  
35 40 45

Ala Arg Leu Pro Gln Glu Asn Asn Asp Asp His Arg Ser Val Asp Leu  
50 55 60

Pro Ala Gly Thr Ser Ala Gly Asp Met Lys Pro Gln Arg Gln Arg Arg  
65 70 75 80

Leu Cys Cys Ile Phe Ala Pro Ile Leu Trp Phe Cys Cys His Gly  
85 90 95

<210> 9

<211> 14

<212> PRT

20250720 10:00:00

<213> Conus miles

<220>

<221> PEPTIDE

<222> (1)..(14)

<223> Xaa at residue 7 may be Pro or hydroxy-Pro; Xaa at residue 10 may be Trp (D or L) or bromo-Trp (D or L)

<400> 9

Leu Cys Cys Ile Phe Ala Xaa Ile Leu Xaa Phe Cys Cys His  
1 5 10

<210> 10

<211> 351

<212> DNA

<213> Conus capitaneus

<220>

<221> CDS

<222> (7)..(291)

<400> 10

ggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg gtg 48  
Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Val  
1 5 10

ggg ttc acc gtc ggg ggt cac gtc cat cgg tct cac agt cct aca tcg 96  
Gly Phe Thr Val Gly Gly His Val His Arg Ser His Ser Pro Thr Ser  
15 20 25 30

cgc agc cat ggt gat gac tcc att cat gac gag acg att cat caa cat 144  
Arg Ser His Gly Asp Asp Ser Ile His Asp Glu Thr Ile His Gln His  
35 40 45

ctg ttt gcc cgt ctt cct cag gag aac aac gac gac cat cgt tct gtg 192  
Leu Phe Ala Arg Leu Pro Gln Glu Asn Asn Asp Asp His Arg Ser Val  
50 55 60

gat ctt cct gca ggg act agc gca ggc gac atg aaa cca caa cgc caa 240  
Asp Leu Pro Ala Gly Thr Ser Ala Gly Asp Met Lys Pro Gln Arg Gln  
65 70 75

aga ggt ttc tgc tgc gac ttt ccc ccg att ttt tgg ttc tgt tgt atc 288  
Arg Gly Phe Cys Cys Asp Phe Pro Pro Ile Phe Trp Phe Cys Cys Ile  
80 85 90

ggt taacagcaca aattacactg cactggccga ttgaaagaac tgcaataaac 341  
Gly  
95

ggaaaaaaaaa 351

<210> 11

<211> 95

<212> PRT

<213> Conus capitaneus

<400> 11

Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Val Gly Phe  
1 5 10 15

Thr Val Gly Gly His Val His Arg Ser His Ser Pro Thr Ser Arg Ser  
20 25 30

His Gly Asp Asp Ser Ile His Asp Glu Thr Ile His Gln His Leu Phe

35 40 45

Ala Arg Leu Pro Gln Glu Asn Asn Asp Asp His Arg Ser Val Asp Leu  
50 55 60

Pro Ala Gly Thr Ser Ala Gly Asp Met Lys Pro Gln Arg Gln Arg Gly  
65 70 75 80

Phe Cys Cys Asp Phe Pro Pro Ile Phe Trp Phe Cys Cys Ile Gly  
85 90 95

<210> 12  
<211> 15  
<212> PRT  
<213> *Conus capitaneus*

<220>  
<221> PEPTIDE  
<222> (1)..(15)  
<223> Xaa at residues 7 and 8 may be Pro or hydroxy-Pro; Xaa at residue  
11 may be Trp (D or L) or bromo-Trp (D or L)

<400> 12  
Gly Phe Cys Cys Asp Phe Xaa Xaa Ile Phe Xaa Phe Cys Cys Ile  
1 5 10 15

<210> 13  
<211> 348  
<212> DNA  
<213> *Conus generalis*

<220>  
<221> CDS  
<222> (7)..(222)

<400> 13  
ggatcc atg cag acg gcc tac tgg gta atg gtg atg atg atg gtg tgg 48  
Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp  
1 5 10

att aaa ggc cct gtg tct gaa ggt ggt aaa ttg aac gac gta att cgg 96  
Ile Lys Gly Pro Val Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg  
15 20 25 30

ggt ttg gtg cca gac gac ttg acc cca gtg ttt gcc ttg cat cat ccg 144  
Gly Leu Val Pro Asp Asp Leu Thr Pro Val Phe Ala Leu His His Pro  
35 40 45

gtt tcc cat cgt cgg tct cac agc agt agt ttg tgg tgt gta tgt cca 192  
Val Ser His Arg Arg Ser His Ser Ser Ser Leu Trp Cys Val Cys Pro  
50 55 60

ttc agg gtg tgt cca cca tgc cat gga aga tgacctggtc ccaaaccaac 242  
Phe Arg Val Cys Pro Pro Cys His Gly Arg  
65 70

aaaataacgt cagacaaccg ccacaacttt agtacgacat cccttaatac gacttcagca 302  
agtatttttaa catcactatg gtgtgatgaa atcagttgct ttaaaa 348

<210> 14  
<211> 72  
<212> PRT  
<213> *Conus generalis*

<400> 14  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Lys  
 1 5 10 15  
 Gly Pro Val Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
 20 25 30  
 Val Pro Asp Asp Leu Thr Pro Val Phe Ala Leu His His Pro Val Ser  
 35 40 45  
 His Arg Arg Ser His Ser Ser Ser Leu Trp Cys Val Cys Pro Phe Arg  
 50 55 60  
 Val Cys Pro Pro Cys His Gly Arg  
 65 70

<210> 15  
 <211> 19  
 <212> PRT  
 <213> Conus generalis  
 <220>  
 <221> PEPTIDE  
 <222> (1)..(19)  
 <223> Xaa at residue 7 may be Trp (D or L) or bromo-Trp (D or L); Xaa a  
 t residues 11, 16 and 17 may be Pro or hydroxy-Pro

<400> 15  
 Ser His Ser Ser Ser Leu Xaa Cys Val Cys Xaa Phe Arg Val Cys Xaa  
 1 5 10 15

Xaa Cys His

<210> 16  
 <211> 405  
 <212> DNA  
 <213> Conus wittigi

<220>  
 <221> CDS  
 <222> (1)..(210)

<220>  
 <221> misc\_feature  
 <222> (1)..(405)  
 <223> n may be any base

<400> 16  
 atg atg ttg gtg tgg att aca gcc cct ctg cct gaa ggt ggt aaa ctg 48  
 Met Met Leu Val Trp Ile Thr Ala Pro Leu Pro Glu Gly Gly Lys Leu 15  
 1 5  
 aag cac gta att cgg ggt ttg gtg cca gac gac tta acc cca cag ctt 96  
 Lys His Val Ile Arg Gly Leu Val Pro Asp Asp Leu Thr Pro Gln Leu 20 25 30  
 atc ttg cga agt ctg att tcc cgt cgt agt tct gac ggc agt gat ccg 144  
 Ile Leu Arg Ser Leu Ile Ser Arg Arg Ser Ser Asp Gly Ser Asp Pro 35 40 45  
 aag gca aaa aaa cag tgt atg tgg aag aga tgt ata cca gac caa tcg 192  
 Lys Ala Lys Lys Gln Cys Met Trp Lys Arg Cys Ile Pro Asp Gln Ser 50 55 60

aga cta gaa gaa gat gaa tgatgtcaga caaccgccat cactgtagta 240  
 Arg Leu Glu Glu Asp Glu  
 65 70

tgacatcggtt aatacgactt aagcaaatat ttttaacatca ctgtgggttct gaagacatca 300

gttgcttttaa aagattggat tcttccttgt ttaagagttg tactganatc attcctgccc 360

tgtgaaataa agctgatggtt gacanncaaa caaaaaaaaa aaaaa 405

<210> 17

<211> 70

<212> PRT

<213> Conus wittigi

<400> 17

Met Met Leu Val Trp Ile Thr Ala Pro Leu Pro Glu Gly Gly Lys Leu  
 1 5 10 15

Lys His Val Ile Arg Gly Leu Val Pro Asp Asp Leu Thr Pro Gln Leu  
 20 25 30

Ile Leu Arg Ser Leu Ile Ser Arg Arg Ser Ser Asp Gly Ser Asp Pro  
 35 40 45

Lys Ala Lys Lys Gln Cys Met Trp Lys Arg Cys Ile Pro Asp Gln Ser  
 50 55 60

Arg Leu Glu Glu Asp Glu  
 65 70

<210> 18

<211> 29

<212> PRT

<213> Conus wittigi

<220>

<221> PEPTIDE

<222> (1)..(29)

<223> Xaa at residues 7 and 20 may be Pro or hydroxy-Pro; Xaa at residue 15 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residues 26, 27 and 29 may be Glu or Glu

<400> 18

Ser Ser Asp Gly Ser Asp Xaa Lys Ala Lys Lys Gln Cys Met Xaa Lys  
 1 5 10 15

Arg Cys Ile Xaa Asp Gln Ser Arg Leu Xaa Xaa Asp Xaa  
 20 25

<210> 19

<211> 463

<212> DNA

<213> Conus consors

<220>

<221> CDS

<222> (7)..(222)

<400> 19

ggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg tgg 48  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp  
 1 5 10



att aca gcc cct ctg tct gaa ggt ggt aaa ttg aac gac gta att cgg 96  
 Ile Thr Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg  
 15 20 25 30

ggt ttg gtg tca cac atc tta atc cca cag cat acc ttg cga agt ctg 144  
 Gly Leu Val Ser His Ile Leu Ile Pro Gln His Thr Leu Arg Ser Leu  
 35 40 45

act tcc cgt gat cgt tct gac aac ggt ggt tcg agt gga gca caa ata 192  
 Thr Ser Arg Asp Arg Ser Asp Asn Gly Gly Ser Ser Gly Ala Gln Ile  
 50 55 60

tgc atc tgg aag gta tgt cca cca tcc cca tagagacgac cacgaggaaa 242  
 Cys Ile Trp Lys Val Cys Pro Pro Ser Pro  
 65 70

aagatgaacg gcgtcagaca accgccacaa ctgtagtacg acatcggtga tacgacttca 302  
 gcaactatatt taacatcact gtgggtgtga agaaatcagt cgctttaaaa gattggattt 362  
 ttccttgttt aagagttgta ctgatatcag ctctgcacta tgaaataaag ctgatgtgac 422  
 ataaaaaaaa aaaaaaaaaag tactctgcgt tgttactcga g 463

<210> 20  
 <211> 72  
 <212> PRT  
 <213> Conus consors

<400> 20  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1 5 10 15  
 Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
 20 25 30  
 Val Ser His Ile Leu Ile Pro Gln His Thr Leu Arg Ser Leu Thr Ser  
 35 40 45  
 Arg Asp Arg Ser Asp Asn Gly Gly Ser Ser Gly Ala Gln Ile Cys Ile  
 50 55 60  
 Trp Lys Val Cys Pro Pro Ser Pro  
 65 70

<210> 21  
 <211> 23  
 <212> PRT  
 <213> Conus consors

<220>  
 <221> PEPTIDE  
 <222> (1)..(23)  
 <223> Xaa at residue 16 may be Trp (D or L) or bromo-Trp (D or L); Xaa  
 at residues 20, 21 and 23 may be Pro or hydroxy-Pro

<400> 21  
 Asp Arg Ser Asp Asn Gly Gly Ser Ser Gly Ala Gln Ile Cys Ile Xaa  
 1 5 10 15  
 Lys Val Cys Xaa Xaa Ser Xaa  
 20

<210> 22  
 <211> 470  
 <212> DNA  
 <213> Conus consors

<220>  
 <221> CDS  
 <222> (7)..(246)

<400> 22  
 ggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg tgg 48  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp  
 1 5 10

att aca gcc cct ctg tct gaa ggt ggt aaa ttg aac gac gca att cgg 96  
 Ile Thr Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Ala Ile Arg  
 15 20 25 30

ggt ttg gtg tca cac atc tta atc cca cag cat acc ttg cga agt ctg 144  
 Gly Leu Val Ser His Ile Leu Ile Pro Gln His Thr Leu Arg Ser Leu  
 35 40 45

act tcc cgt gct cgt tct gac aac ggt ggt tcg agt gga gca caa ata 192  
 Thr Ser Arg Ala Arg Ser Asp Asn Gly Gly Ser Ser Gly Ala Gln Ile  
 50 55 60

tgc atc tgg aag gta tgt cca cca tcc cca tgg aga cga cca caa gga 240  
 Cys Ile Trp Lys Val Cys Pro Pro Ser Pro Trp Arg Arg Pro Gln Gly  
 65 70 75

aaa aga tgaatgacgt cagacaaccg ccacaactgt agtacgacat cggttgatacg 296  
 Lys Arg  
 80

acttcagcaa atattttaac atcactgtgg ttgtgaagaa atcagttgct ttaaaagatt 356

ggatttttcc ttgtttaaga gttgtactga tatcagctct gcactatgaa ataaagctga 416

tgtgacaaac aataaaaaag aaaaaaaaaa aagtactctg cggttggtact cgag 470

<210> 23  
 <211> 80  
 <212> PRT  
 <213> Conus consors

<400> 23  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1 5 10 15

Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Ala Ile Arg Gly Leu  
 20 25 30

Val Ser His Ile Leu Ile Pro Gln His Thr Leu Arg Ser Leu Thr Ser  
 35 40 45

Arg Ala Arg Ser Asp Asn Gly Gly Ser Ser Gly Ala Gln Ile Cys Ile  
 50 55 60

Trp Lys Val Cys Pro Pro Ser Pro Trp Arg Arg Pro Gln Gly Lys Arg  
 65 70 75 80

<210> 24  
 <211> 28  
 <212> PRT

<213> Conus consors

<220>

<221> PEPTIDE

<222> (1)..(28)

<223> Xaa at residues 16 and 24 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residues 20, 21, 23 and 27 may be Pro or hydroxy-Pro

<400> 24

Ala Arg Ser Asp Asn Gly Gly Ser Ser Gly Ala Gln Ile Cys Ile Xaa  
1 5 10 15

Lys Val Cys Xaa Xaa Ser Xaa Xaa Arg Arg Xaa Gln  
20 25

<210> 25

<211> 469

<212> DNA

<213> Conus consors

<220>

<221> CDS

<222> (7)..(228)

<400> 25

ggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg tgg 48  
Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp  
1 5 10

att aca gcc cct ctg tct gaa ggt ggt aaa ttg aac gac gta att cgg 96  
Ile Thr Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg  
15 20 25 30

ggt ttg gtg cca cac ttc tta acc cca cag cat atc ttg caa agt ctg 144  
Gly Leu Val Pro His Phe Leu Thr Pro Gln His Ile Leu Gln Ser Leu  
35 40 45

act tcc cgt aat ggt tct ggc agc agt aat cag aaa gaa gca caa cta 192  
Thr Ser Arg Asn Gly Ser Gly Ser Ser Asn Gln Lys Glu Ala Gln Leu  
50 55 60

tgc atc tgg aag gta tgt cca cca tcc cca tgg aga tgaccacaag 238  
Cys Ile Trp Lys Val Cys Pro Pro Ser Pro Trp Arg  
65 70

gaaaaagatg aacggcgtca gacaaccgcc acaactgtag tgggacatcg ttgatacgac 298

ttcagcaaatt attttaacat cactgtgggt gtgaagaaat cagttgcttt aaaagattgg 358

atTTTTcctt gTTtaagaat tgtactgata tcagctctgc actatgaaat aaagctgatg 418

tgacaacca aaaaaaaaaa aaaaaaaaaag tactctgCG\_\_tgTTactcga g 469

<210> 26

<211> 74

<212> PRT

<213> Conus consors

<400> 26

Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
1 5 10 15

Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
20 25 30

205210 22833007

Val Pro His Phe Leu Thr Pro Gln His Ile Leu Gln Ser Leu Thr Ser  
35 40 45

Arg Asn Gly Ser Gly Ser Ser Asn Gln Lys Glu Ala Gln Leu Cys Ile  
50 55 60

Trp Lys Val Cys Pro Pro Ser Pro Trp Arg  
65 70

<210> 27

<211> 25

<212> PRT

<213> Conus consors

<220>

<221> PEPTIDE

<222> (1)..(25)

<223> Xaa at residue 10 may be Glu or Gla; Xaa at residues 16 and 24 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residues 20, 21 and 23 may be Pro or hydroxy-Pro

<400> 27

Asn Gly Ser Gly Ser Ser Asn Gln Lys Xaa Ala Gln Leu Cys Ile Xaa  
1 5 10 15

Lys Val Cys Xaa Xaa Ser Xaa Xaa Arg  
20 25

<210> 28

<211> 472

<212> DNA

<213> Conus tulipa

<220>

<221> CDS

<222> (7)..(231)

<220>

<221> misc\_feature

<222> (1)..(472)

<223> n may be any base

<400> 28

ggatcc atg cag acg gcc tac tgg gtg atg ctg atg atg atg gtg tgg 48  
Met Gln Thr Ala Tyr Trp Val Met Leu Met Met Met Val Trp  
1 5 10

att aca gcc cct ctg tct gaa ggt ggt aaa ctg aac gac gta att cgg 96  
Ile Thr Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg  
15 20 25 30

ggt ttg gtg cca cac gtc tta acc cca cag cat atc ttg caa agt ctg 144  
Gly Leu Val Pro His Val Leu Thr Pro Gln His Ile Leu Gln Ser Leu  
35 40 45

gtt tcc cgt cgt cat ttt aac agc gtt gtt ccg acg gta tac ata tgc 192  
Val Ser Arg Arg His Phe Asn Ser Val Val Pro Thr Val Tyr Ile Cys  
50 55 60

atg tgg aag gta tgt cca cca tcg cca tag aga cga cca taaggaaaa 241  
Met Trp Lys Val Cys Pro Pro Ser Pro Arg Arg Pro  
65 70

gatgaatgac gtcagacaac cgccacaact gtagtacgac atcggttaata cgacttcagc 301

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aaatatttta acatcactgt ggttgtgaag aaatcagttg ctttaaaaga ttggattttt 361  
 ccttgtttca gagttgtact gatatacagct ctgcactatc aaataaagct gaagtgacaa 421  
 accnnaaaaa aaaaaaaaaa aaaaaaaag tactctgcgt tgttactcga g 472

<210> 29  
 <211> 71  
 <212> PRT  
 <213> Conus tulipa

<400> 29  
 Met Gln Thr Ala Tyr Trp Val Met Leu Met Met Met Val Trp Ile Thr  
 1 5 10 15  
 Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
 20 25 30  
 Val Pro His Val Leu Thr Pro Gln His Ile Leu Gln Ser Leu Val Ser  
 35 40 45  
 Arg Arg His Phe Asn Ser Val Val Pro Thr Val Tyr Ile Cys Met Trp  
 50 55 60  
 Lys Val Cys Pro Pro Ser Pro  
 65 70

<210> 30  
 <211> 21  
 <212> PRT  
 <213> Conus tulipa

<220>  
 <221> PEPTIDE  
 <222> (1)..(21)  
 <223> Xaa at residues 7, 18, 19 and 21 may be Pro or hydroxy-Pro; Xaa at  
 residue 10 may be Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-  
 sulpho-Tyr or O-phospho-Tyr; Xaa at residue 14 may be Trp or brom  
 o-Trp

<400> 30  
 His Phe Asn Ser Val Val Xaa Thr Val Xaa Ile Cys Met Xaa Lys Val  
 1 5 10 15  
 Cys Xaa Xaa Ser Xaa  
 20

<210> 31  
 <211> 451  
 <212> DNA  
 <213> Conus tulipa

<220>  
 <221> CDS  
 <222> (1)..(279)

<400> 31  
 atg cag acg gcc tac tgg gtg atg ctg ttg atg atg gtg ggc att aca 48  
 Met Gln Thr Ala Tyr Trp Val Met Leu Leu Met Met Val Gly Ile Thr  
 1 5 10 15  
 gcc cct ctg cct gaa ggt ggt aaa ccg aac agc gta att cgg ggt ttg 96  
 Ala Pro Leu Pro Glu Gly Gly Lys Pro Asn Ser Val Ile Arg Gly Leu

20 25 30

gtg cca aac gac tta act cca cag cat acc ttg cga agt ctg att tcc 144  
Val Pro Asn Asp Leu Thr Pro Gln His Thr Leu Arg Ser Leu Ile Ser  
35 40 45

cgt cgt caa act gac gtt ctt ctg gag gct acc ctt ttg aca aca cca 192  
Arg Arg Gln Thr Asp Val Leu Leu Glu Ala Thr Leu Leu Thr Thr Pro  
50 55 60

gcc ccc gag cag aga ttg ttc tgc ttc tgg aag tca tgt tgg cca agg 240  
Ala Pro Glu Gln Arg Leu Phe Cys Phe Trp Lys Ser Cys Trp Pro Arg  
65 70 75 80

ccc tac cct tgg aga cga cgt gat ctt aat gga aaa cga tgaatgacgt 289  
Pro Tyr Pro Trp Arg Arg Arg Asp Leu Asn Gly Lys Arg  
85 90

cagacaaccg ccacaactgt agtacgacat cattaatacgc acttcagcaa atattttaac 349

attactgtgg ttgtgaagaa atcacttgct ttaaaagatt ggttttttcc ttgtttcaga 409

gttgactga tatcagctct gccctatgaa ataaagctga tg 451

<210> 32  
<211> 93  
<212> PRT  
<213> Conus tulipa

<400> 32  
Met Gln Thr Ala Tyr Trp Val Met Leu Leu Met Met Val Gly Ile Thr  
1 5 10 15

Ala Pro Leu Pro Glu Gly Gly Lys Pro Asn Ser Val Ile Arg Gly Leu  
20 25 30

Val Pro Asn Asp Leu Thr Pro Gln His Thr Leu Arg Ser Leu Ile Ser  
35 40 45

Arg Arg Gln Thr Asp Val Leu Leu Glu Ala Thr Leu Leu Thr Thr Pro  
50 55 60

Ala Pro Glu Gln Arg Leu Phe Cys Phe Trp Lys Ser Cys Trp Pro Arg  
65 70 75 80

Pro Tyr Pro Trp Arg Arg Arg Asp Leu Asn Gly Lys Arg  
85 90

<210> 33  
<211> 40  
<212> PRT  
<213> Conus tulipa

<220>  
<221> PEPTIDE  
<222> (1)..(40)  
<223> Xaa at residue 1 is Gln or pyro-Glu; Xaa at residue 7 and 17 may  
be Glu or Gla; Xaa at residue 14, 16, 29, 31 and 33 may be Pro or  
hydroxy-Pro; Xaa at residues 24, 28 and 34 may be Trp (D or L) o  
r bromo-Trp (D or L)

<220>  
<221> PEPTIDE  
<222> (1)..(40)

<223> Xaa at residue 32 may be Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr

<400> 33

Xaa Thr Asp Val Leu Leu Xaa Ala Thr Leu Leu Thr Thr Xaa Ala Xaa  
1 5 10 15

Xaa Gln Arg Leu Phe Cys Phe Xaa Lys Ser Cys Xaa Xaa Arg Xaa Xaa  
20 25 30

Xaa Xaa Arg Arg Arg Asp Leu Asn  
35 40

<210> 34

<211> 414

<212> DNA

<213> Conus sulcatus

<220>

<221> CDS

<222> (1)..(285)

<400> 34

atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg tgg att aca 48  
Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
1 5 10 15

gcc cct ctg tct gaa ggt ggt aaa ccg aac gac gta att cgg ggt ttg 96  
Ala Pro Leu Ser Glu Gly Gly Lys Pro Asn Asp Val Ile Arg Gly Leu  
20 25 30

gtg cca gac gac tta acc cca cag cgt gtc ttg cga agt ctg att tcc 144  
Val Pro Asp Asp Leu Thr Pro Gln Arg Val Leu Arg Ser Leu Ile Ser  
35 40 45

cgt cgt caa tct ggc tgc aga gtc ccg ttt gaa ttg aaa tgc atc tgg 192  
Arg Arg Gln Ser Gly Cys Arg Val Pro Phe Glu Leu Lys Cys Ile Trp  
50 55 60

aag ttc tgt aca ata tac cca tcg aga cca ttt gct tct ctg gaa gaa 240  
Lys Phe Cys Thr Ile Tyr Pro Ser Arg Pro Phe Ala Ser Leu Glu Glu  
65 70 75 80

aaa gac gaa tgt cag aca gtc acc ata act gta aca tgg gat ttt 285  
Lys Asp Glu Cys Gln Thr Val Thr Ile Thr Val Thr Trp Asp Phe  
85 90 95

taatacgtct ccagcaagta ttttaacatc actgtggttg tgaagaaatc agttgcttta 345

aaagattgga tttttccttg ttttaagagtt gtactgatat cagctctgcc ctgtgaaata 405

aagctgatg 414

<210> 35

<211> 95

<212> PRT

<213> Conus sulcatus

<400> 35

Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
1 5 10 15

Ala Pro Leu Ser Glu Gly Gly Lys Pro Asn Asp Val Ile Arg Gly Leu  
20 25 30

Val Pro Asp Asp Leu Thr Pro Gln Arg Val Leu Arg Ser Leu Ile Ser  
35 40 45

Arg Arg Gln Ser Gly Cys Arg Val Pro Phe Glu Leu Lys Cys Ile Trp  
50 55 60

Lys Phe Cys Thr Ile Tyr Pro Ser Arg Pro Phe Ala Ser Leu Glu Glu  
65 70 75 80

Lys Asp Glu Cys Gln Thr Val Thr Ile Thr Val Thr Trp Asp Phe  
85 90 95

<210> 36

<211> 45

<212> PRT

<213> Conus sulcatus

<220>

<221> PEPTIDE

<222> (1)..(45)

<223> Xaa at residue 1 is Gln or pyro-Glu; Xaa at residues 7, 21 and 24 may be Pro or hydroxy-Pro; Xaa at residues 9, 29, 30 and 33 may be Glu or Gla; Xaa at residues 14 and 43 may be Trp (D or L) or bromo-Trp (D or L)

<220>

<221> PEPTIDE

<222> (1)..(45)

<223> Xaa at residue 20 may be Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr

<400> 36

Xaa Ser Gly Cys Arg Val Xaa Phe Xaa Leu Lys Cys Ile Xaa Lys Phe  
1 5 10 15

Cys Thr Ile Xaa Xaa Ser Arg Ser Phe Ala Ser Leu Xaa Xaa Lys Asp  
20 25 30

Xaa Cys Gln Thr Val Thr Ile Thr Val Thr Xaa Asp Phe  
35 40 45

<210> 37

<211> 413

<212> DNA

<213> Conus sulcatus

<220>

<221> CDS

<222> (1)..(234)

<400> 37

atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg tgg att aca 48  
Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
1 5 10 15

gcc tct ctg tct gaa ggt ggt aaa ccg aac gac gtc att cgg ggt ttt 96  
Ala Ser Leu Ser Glu Gly Gly Lys Pro Asn Asp Val Ile Arg Gly Phe  
20 25 30

gtg cca gac gac tta acc cca cag ctt atc ttg cga agt ctg att tcc 144  
Val Pro Asp Asp Leu Thr Pro Gln Leu Ile Leu Arg Ser Leu Ile Ser  
35 40 45

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cgt cgt cgt tct gac aag gat gtt ggg aag aga atg gaa tgt tac tgg 192  
 Arg Arg Arg Ser Asp Lys Asp Val Gly Lys Arg Met Glu Cys Tyr Trp  
 50 55 60

aag gca tgt aga ccc acg cta tcg aga cga cat gat ctt ggg 234  
 Lys Ala Cys Arg Pro Thr Leu Ser Arg Arg His Asp Leu Gly  
 65 70 75

taaaagatga atgacgtcag acaacagcca caactatagt atgacatcgt taatacgact 294

tcagcaaata ttttaacatc actgtgggtg tgaagaaatc agttgcttta aaagattgga 354

tttttcctgtg ttttaagagtt gtactgatat cagctctgcc ctgtgaaata aagctgatg 413

<210> 38

<211> 78

<212> PRT

<213> Conus sulcatus

<400> 38

Met Gln Thr Ala Tyr Trp Val Met Val Met Met Val Trp Ile Thr  
 1 5 10 15

Ala Ser Leu Ser Glu Gly Gly Lys Pro Asn Asp Val Ile Arg Gly Phe  
 20 25 30

Val Pro Asp Asp Leu Thr Pro Gln Leu Ile Leu Arg Ser Leu Ile Ser  
 35 40 45

Arg Arg Arg Ser Asp Lys Asp Val Gly Lys Arg Met Glu Cys Tyr Trp  
 50 55 60

Lys Ala Cys Arg Pro Thr Leu Ser Arg Arg His Asp Leu Gly  
 65 70 75

<210> 39

<211> 27

<212> PRT

<213> Conus sulcatus

<220>

<221> PEPTIDE

<222> (1)..(27)

<223> Xaa at residue 11 may be Glu or Gla; Xaa at residue 13 may be Pro  
 or hydroxy-Pro; Xaa at residue 14 may be Trp (D or L) or bromo-T  
 rp (D or L); Xaa at residue 19 may be Tyr, 125I-Tyr, mono-iodo-Ty  
 r, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr

<400> 39

Arg Ser Asp Lys Asp Val Gly Lys Arg Met Xaa Cys Xaa Xaa Lys Ala  
 1 5 10 15

Cys Arg Xaa Thr Leu Ser Arg Arg His Asp Leu  
 20 25

<210> 40

<211> 451

<212> DNA

<213> Conus magus

<220>

<221> CDS

<222> (1)..(279)

<400> 40

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atg cag acg gcc tac tgg gtg atg ctg atg atg atg gtg tgc atc aca      48
Met Gln Thr Ala Tyr Trp Val Met Leu Met Met Met Val Cys Ile Thr
1          5          10

gcc cct ctg cct gaa ggt ggt aaa ccg aac agc gga att cgg ggt ttg      96
Ala Pro Leu Pro Glu Gly Gly Lys Pro Asn Ser Gly Ile Arg Gly Leu
          20          25          30

gtg cca aac gac tta act cca cag cat acc ttg cga agt ctg att tcc      144
Val Pro Asn Asp Leu Thr Pro Gln His Thr Leu Arg Ser Leu Ile Ser
          35          40          45

cgt cgt caa act gac gtt ctt ctg gat gct acc ctt ttg aca aca cca      192
Arg Arg Gln Thr Asp Val Leu Leu Asp Ala Thr Leu Leu Thr Thr Pro
          50          55          60

gcc ccc gag cag aga ttg ttc tgc ttc tgg aag tca tgt tgg cca agg      240
Ala Pro Glu Gln Arg Leu Phe Cys Phe Trp Lys Ser Cys Trp Pro Arg
65          70          75          80

ccc tac cct tgg aga cga cgt aat ctt aat gga aaa cga tgaatgacgt      289
Pro Tyr Pro Trp Arg Arg Arg Asn Leu Asn Gly Lys Arg
          85          90

cagacaaccg ccacaactgt agtacgacat cgттаатacg acttcagcaa atattttaac      349

ataactgtgg ttgtgaagaa atcggttgct ttaaaagatt ggatttttcc ttgtttcaga      409

gttgactga tatgagctct gccctgtgaa ataaagctga tg                        451

<210> 41
<211> 93
<212> PRT
<213> Conus magus

<400> 41
Met Gln Thr Ala Tyr Trp Val Met Leu Met Met Met Val Cys Ile Thr
1          5          10

Ala Pro Leu Pro Glu Gly Gly Lys Pro Asn Ser Gly Ile Arg Gly Leu
          20          25          30

Val Pro Asn Asp Leu Thr Pro Gln His Thr Leu Arg Ser Leu Ile Ser
          35          40          45

Arg Arg Gln Thr Asp Val Leu Leu Asp Ala Thr Leu Leu Thr Thr Pro
          50          55          60

Ala Pro Glu Gln Arg Leu Phe Cys Phe Trp Lys Ser Cys Trp Pro Arg
65          70          75          80

Pro Tyr Pro Trp Arg Arg Arg Asn Leu Asn Gly Lys Arg
          85          90

<210> 42
<211> 40
<212> PRT
<213> Conus magus

<220>
<221> PEPTIDE
<222> (1)..(40)
<223> Xaa at residue 1 is Gln or pyro-Glu; Xaa at residues 14, 16, 29,
31 and 33 may be Pro or hydroxy-Pro; Xaa at residue 17 may be Glu

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or Glu; Xaa at residues 24, 28 and 34 may be Trp (D or L) or bromo-Trp (D or L)

<220>  
 <221> PEPTIDE  
 <222> (1)..(40)  
 <223> Xaa at residue 32 may be Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr

<400> 42  
 Xaa Thr Asp Val Leu Leu Asp Ala Thr Leu Leu Thr Thr Xaa Ala Xaa  
 1 5 10 15

Xaa Gln Arg Leu Phe Cys Phe Xaa Lys Ser Cys Xaa Xaa Arg Xaa Xaa  
 20 25 30

Xaa Xaa Arg Arg Arg Asn Leu Asn  
 35 40

<210> 43  
 <211> 423  
 <212> DNA  
 <213> Conus emaciatus

<220>  
 <221> CDS  
 <222> (1)..(249)

<400> 43  
 atg cag acg gcc tac tgg gtg atg gcg atg atg atg gtg tgg att aca 48  
 Met Gln Thr Ala Tyr Trp Val Met Ala Met Met Met Val Trp Ile Thr  
 1 5 10 15

gcc cct ctg tct gaa ggt ggt aaa ttg aac gac gta att cgg ggt ttg 96  
 Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
 20 25 30

gtg cca gat gac tta acc cca cag ctt gtt ttg caa agt ctg gat tcc 144  
 Val Pro Asp Asp Leu Thr Pro Gln Leu Val Leu Gln Ser Leu Asp Ser  
 35 40 45

cgt cgt cat act cac ggc att cgt ccg aag gga gac ggc ata tgt atc 192  
 Arg Arg His Thr His Gly Ile Arg Pro Lys Gly Asp Gly Ile Cys Ile  
 50 55 60

tgg aag gta tgt cca cca gac cca tgg aga cga cat cgt ctt aag aaa 240  
 Trp Lys Val Cys Pro Pro Asp Pro Trp Arg Arg His Arg Leu Lys Lys  
 65 70 75 80

aga aac aat tgacgtcaga caaccgccac aacttgagta cgacatcggt 289  
 Arg Asn Asn

aatacgactt cagcaaatat gaaattttca gcatcactgt gggtgtcaag aaatcagttg 349

ctttaaaaga ttggatttgt ccttggttaa gagttgtact gatgtcagct ctgccctgtg 409

aaataaagct gatg 423

<210> 44  
 <211> 83  
 <212> PRT  
 <213> Conus emaciatus

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<400> 44  
 Met Gln Thr Ala Tyr Trp Val Met Ala Met Met Met Val Trp Ile Thr  
 1 5 10 15  
 Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
 20 25 30  
 Val Pro Asp Asp Leu Thr Pro Gln Leu Val Leu Gln Ser Leu Asp Ser  
 35 40 45  
 Arg Arg His Thr His Gly Ile Arg Pro Lys Gly Asp Gly Ile Cys Ile  
 50 55 60  
 Trp Lys Val Cys Pro Asp Pro Trp Arg Arg His Arg Leu Lys Lys  
 65 70 75 80

Arg Asn Asn

<210> 45  
 <211> 33  
 <212> PRT  
 <213> Conus emaciatus  
 <220>  
 <221> PEPTIDE  
 <222> (1)..(33)  
 <223> Xaa at residues 7, 19, 20 and 22 may be Pro or hydroxy-Pro; Xaa at  
 residues 15 and 23 may be Trp (D or L) or bromo-Trp (D or L)

<400> 45  
 His Thr His Gly Ile Arg Xaa Lys Gly Asp Gly Ile Cys Ile Xaa Lys  
 1 5 10 15  
 Val Cys Xaa Xaa Asp Xaa Xaa Arg Arg His Arg Leu Lys Lys Arg Asn  
 20 25 30

Asn

<210> 46  
 <211> 412  
 <212> DNA  
 <213> Conus circumciscus

<220>  
 <221> CDS  
 <222> (1)..(240)

<400> 46  
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 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Val Val Trp Ile Thr  
 1 5 10 15  
 gcc cct ctg tct gaa ggt ggt aaa tcg aac gac gta att cgg ggt ttg 96  
 Ala Pro Leu Ser Glu Gly Gly Lys Ser Asn Asp Val Ile Arg Gly Leu  
 20 25 30  
 gtg cca cac atc tta acc cca cag cat atc ttg caa agt ctg act tcc 144  
 Val Pro His Ile Leu Thr Pro Gln His Ile Leu Gln Ser Leu Thr Ser  
 35 40 45  
 cgt ctt cgt tct gac agc agt ggt cag aaa gga gca caa ata tgc atc 192  
 Arg Leu Arg Ser Asp Ser Ser Gly Gln Lys Gly Ala Gln Ile Cys Ile  
 50 55 60

tgg aag gta tgt cca cta tcc cca tgg aga cga cca caa gga aaa aga 240  
 Trp Lys Val Cys Pro Leu Ser Pro Trp Arg Arg Pro Gln Gly Lys Arg  
 65 70 75 80

tgaatgacgt cagacaaccg ctacaactgt agtacgacat cgttgatacg acttcagcaa 300

atatTTTaaac atcactgtgg ttgtgaagaa atcagttgct tTaaaagatt ggatttttcc 360

ttgtTTTaaaga gttgtactga tatcagctct gccctgtgaa ataaagctga tg 412

<210> 47

<211> 80

<212> PRT

<213> *Conus circumciscus*

<400> 47

Met Gln Thr Ala Tyr Trp Val Met Val Met Met Val Val Trp Ile Thr  
 1 5 10 15

Ala Pro Leu Ser Glu Gly Gly Lys Ser Asn Asp Val Ile Arg Gly Leu  
 20 25 30

Val Pro His Ile Leu Thr Pro Gln His Ile Leu Gln Ser Leu Thr Ser  
 35 40 45

Arg Leu Arg Ser Asp Ser Ser Gly Gln Lys Gly Ala Gln Ile Cys Ile  
 50 55 60

Trp Lys Val Cys Pro Leu Ser Pro Trp Arg Arg Pro Gln Gly Lys Arg  
 65 70 75 80

<210> 48

<211> 28

<212> PRT

<213> *Conus circumciscus*

<220>

<221> PEPTIDE

<222> (1)..(28)

<223> Xaa at residues 16 and 24 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residues 20, 23 and 27 may be Pro or hydroxy-Pro

<400> 48

Leu Arg Ser Asp Ser Ser Gly Gln Lys Gly Ala Gln Ile Cys Ile Xaa  
 1 5 10 15

Lys Val Cys Xaa Leu Ser Xaa Xaa Arg Arg Xaa Gln  
 20 25

<210> 49

<211> 410

<212> DNA

<213> *Conus betulinus*

<220>

<221> CDS

<222> (1)..(207)

<400> 49

atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg tgg att aca 48  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1 5 10 15

gcc cct ctg tcc gaa ggt ggt aaa ctg aac gat gta att cgg gct ttg 96  
 Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Ala Leu

20 25 30  
 gcg cca gac gac gta acc cca cag ttt atc ttg cga agt ctg att tcc 144  
 Ala Pro Asp Asp Val Thr Pro Gln Phe Ile Leu Arg Ser Leu Ile Ser  
 35 40 45  
 cgt cgt cgt tct gac agc gat gtt cgg gag gta ccc gta tgt tcc tgg 192  
 Arg Arg Arg Ser Asp Ser Asp Val Arg Glu Val Pro Val Cys Ser Trp  
 50 55 60  
 aag ata tgt cca cca tagccataga gacgacatga tcttaaggaa aaagagaaat 247  
 Lys Ile Cys Pro Pro  
 65  
 gacgtcagac aacogccaca actgtagtac ggcacgtta atacgacttc agcaaatggt 307  
 ttaacatcac tgtggttgtg aagaaatcag ctgctttaa agattggatt tttccttaag 367  
 agttgcactg atgtcagttc tgccctgtga aataaagctg atg 410  
 <210> 50  
 <211> 69  
 <212> PRT  
 <213> Conus betulinus  
 <400> 50  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1 5 10 15  
 Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Ala Leu  
 20 25 30  
 Ala Pro Asp Asp Val Thr Pro Gln Phe Ile Leu Arg Ser Leu Ile Ser  
 35 40 45  
 Arg Arg Arg Ser Asp Ser Asp Val Arg Glu Val Pro Val Cys Ser Trp  
 50 55 60  
 Lys Ile Cys Pro Pro  
 65  
 <210> 51  
 <211> 19  
 <212> PRT  
 <213> Conus betulinus  
 <220>  
 <221> PEPTIDE  
 <222> (1)..(19)  
 <223> Xaa at residue 8 may be Glu or Gla; Xaa at residues 10, 18 and 19  
 may be Pro or hydroxy-Pro; Xaa at residue 14 may be Trp (D or L)  
 or bromo-Trp (D or L)  
 <400> 51  
 Arg Ser Asp Ser Asp Val Arg Xaa Val Xaa Val Cys Ser Xaa Lys Ile  
 1 5 10 15  
 Cys Xaa Xaa  
 <210> 52  
 <211> 423  
 <212> DNA  
 <213> Conus aurisiacus

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<220>  
 <221> CDS  
 <222> (1)..(249)

<400> 52  
 atg cag acg gcc tac tgg gtg atg gcg atg atg atg gtg tgg att aca 48  
 Met Gln Thr Ala Tyr Trp Val Met Ala Met Met Met Val Trp Ile Thr  
 1 5 10 15  
 gcc cct ctg tct gaa ggt ggt aaa ttg aac gac gta att cgg ggt ttg 96  
 Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
 20 25 30  
 gtg cca gat gac tta acc cca cag ctt gtt ttg caa agt ctg gat tcc 144  
 Val Pro Asp Asp Leu Thr Pro Gln Leu Val Leu Gln Ser Leu Asp Ser  
 35 40 45  
 cgt cgt cat act cac ggc att cgt ccg aag gga gac ggc ata tgt atc 192  
 Arg Arg His Thr His Gly Ile Arg Pro Lys Gly Asp Gly Ile Cys Ile  
 50 55 60  
 tgg aag gta tgt cca cca gac cca tgg aga cga cat cat ctt aag aaa 240  
 Trp Lys Val Cys Pro Pro Asp Pro Trp Arg Arg His His Leu Lys Lys  
 65 70 75 80  
 aga aac aat tgacgtcaga caaccgccac aacttgagta cgacatcggt 289  
 Arg Asn Asn  
 aatacgactt cagcaaatat gaaattttca gcatcactgt ggttgtcaag aaatcagttg 349  
 ctttaaaaga ttggatttgt ccttgtttaa gagttgtact gatgtcagct ctgccctatg 409  
 aaataaagct gatg 423  
 <210> 53  
 <211> 83  
 <212> PRT  
 <213> Conus aurisiacus

<400> 53  
 Met Gln Thr Ala Tyr Trp Val Met Ala Met Met Met Val Trp Ile Thr  
 1 5 10 15  
 Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
 20 25 30  
 Val Pro Asp Asp Leu Thr Pro Gln Leu Val Leu Gln Ser Leu Asp Ser  
 35 40 45  
 Arg Arg His Thr His Gly Ile Arg Pro Lys Gly Asp Gly Ile Cys Ile  
 50 55 60  
 Trp Lys Val Cys Pro Pro Asp Pro Trp Arg Arg His His Leu Lys Lys  
 65 70 75 80  
 Arg Asn Asn

<210> 54  
 <211> 33  
 <212> PRT  
 <213> Conus aurisiacus

<220>  
 <221> PEPTIDE  
 <222> (1)..(33)  
 <223> Xaa at residues 7, 19, 20 and 22 may be Pro or hydroxy-Pro; Xaa at residues 1 and 24 may be Trp (D or L) or bromo-Trp (D or L)

<400> 54  
 His Thr His Gly Ile Arg Xaa Lys Gly Asp Gly Ile Cys Ile Xaa Lys  
 1 5 10 15  
 Val Cys Xaa Xaa Asp Xaa Xaa Arg Arg His His Leu Lys Lys Arg Asn  
 20 25 30

Asn

<210> 55  
 <211> 439  
 <212> DNA  
 <213> Conus aurisiacus

<220>  
 <221> CDS  
 <222> (1)..(249)  
 <400> 55  
 atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg tgg att aca 48  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1 5 10 15  
 gcc cct ctg tct gaa ggt ggt aaa ttg aac gac gta att tgg ggt ttg 96  
 Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Trp Gly Leu  
 20 25 30  
 gtg cca cac atc tta acc cca cag cat atc ttg caa agc ctg act tcc 144  
 Val Pro His Ile Leu Thr Pro Gln His Ile Leu Gln Ser Leu Thr Ser  
 35 40 45  
 cgt ctt cat tct gac agc agt gat cag aaa gga ggc atg aac gca tgg 192  
 Arg Leu His Ser Asp Ser Ser Asp Gln Lys Gly Gly Met Asn Ala Trp  
 50 55 60  
 aca gga gca gga gca caa ata tgc atc tgg aag gta tgt cca cca ccc 240  
 Thr Gly Ala Gly Ala Gln Ile Cys Ile Trp Lys Val Cys Pro Pro Pro  
 65 70 75 80  
 cca tgg aga tgaacacaag gaaaaagatg aatgacgtca gacaaccgcc 289  
 Pro Trp Arg  
 acaactgtag tacgacatcg ttgatacgac ttcagcaaat attttaacat cactgtgggtt 349  
 gtgaagaaat cagttgcttt aaaagattgg atttttcctt gtttaagagt tgtactgata 409  
 tcagctctgc cctgtgaagt aaagctgatg 439

<210> 56  
 <211> 83  
 <212> PRT  
 <213> Conus aurisiacus

<400> 56  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1 5 10 15

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<210> 59
<211> 74
<212> PRT
<213> Conus aurisiacus
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<210> 60
<211> 25
<212> PRT
<213> Conus aurisiacus
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<400>    60
Leu His Ser Asp Ser Ser Asp Gln Lys Gly Ala Gln Ile Cys Ile Xaa
1              5              10              15

Lys Val Cys Xaa Xaa Xaa Xaa Arg
              20              25
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<210> 61
<211> 439
<212> DNA
<213> Conus aurisiacus
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<220>
<221> CDS
<222> (1)..(267)
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<400>	61																		
atg	cag	acg	gcc	tac	tgg	gtg	atg	gtg	atg	atg	atg	gtg	tgg	att	aca				48
Met	Gln	Thr	Ala	Tyr	Trp	Val	Met	Val	Met	Met	Met	Val	Trp	Ile	Thr				
1				5					10					15					
gcc	cct	ctg	ttt	gaa	ggt	ggt	aaa	ttg	aac	gac	gta	att	cgg	ggt	ttg				96
Ala	Pro	Leu	Phe	Glu	Gly	Gly	Lys	Leu	Asn	Asp	Val	Ile	Arg	Gly	Leu				
			20					25					30						

gtg cca cac atc tta acc cca cag cat atc ttg caa agc ctg act tcc 144  
Val Pro His Ile Leu Thr Pro Gln His Ile Leu Gln Ser Leu Thr Ser  
35 40 45

cgt ctt cgt tct gac agc agt gat cag aaa gga ggc atg aac gca tcg 192  
Arg Leu Arg Ser Asp Ser Ser Asp Gln Lys Gly Gly Met Asn Ala Ser  
50 55 60

aca gga gca gga gca caa ata tgc atc tgg aag gta tgt cca cca tcc 240  
Thr Gly Ala Gly Ala Gln Ile Cys Ile Trp Lys Val Cys Pro Pro Ser  
65 70 75 80

cca tgg aga cga aca caa gga aaa aga tgaatgacgt cagacaaccg 287  
Pro Trp Arg Arg Thr Gln Gly Lys Arg  
85

ccacaactgt agtacgacat cgttgatacg acttcagcaa atattttaac atcactgtgg 347

ttgtgaagaa atcagttgct ttaaaagatt ggatttttcc ttgtttaaga gttgtactga 407

tatcagctct gcaactgtgaa ataaagctga tg 439

<210> 62

<211> 89

<212> PRT

<213> Conus aurisiacus

<400> 62

Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
1 5 10 15

Ala Pro Leu Phe Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
20 25 30

Val Pro His Ile Leu Thr Pro Gln His Ile Leu Gln Ser Leu Thr Ser  
35 40 45

Arg Leu Arg Ser Asp Ser Ser Asp Gln Lys Gly Gly Met Asn Ala Ser  
50 55 60

Thr Gly Ala Gly Ala Gln Ile Cys Ile Trp Lys Val Cys Pro Pro Ser  
65 70 75 80

Pro Trp Arg Arg Thr Gln Gly Lys Arg  
85

<210> 63

<211> 37

<212> PRT

<213> Conus aurisiacus

<220>

<221> PEPTIDE

<222> (1)..(37)

<223> Xaa at residues 25 and 33 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residues 29, 30 and 32 may be Pro or hydroxy-Pro

<400> 63

Leu Arg Ser Asp Ser Ser Asp Gln Lys Gly Gly Met Asn Ala Ser Thr  
1 5 10 15

Gly Ala Gly Ala Gln Ile Cys Ile Xaa Lys Val Cys Xaa Xaa Ser Xaa  
20 25 30

<210>	66
<211>	28
<212>	PRT

<213> *Conus achatinus*

<220>

<221> PEPTIDE

<222> (1)..(28)

<223> Xaa at residues 16 and 24 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residues 20, 21, 23 and 27 may be Pro or hydroxy-Pro

<400> 66

Leu Arg Ser Asp Asn Gly Gly Ser Ser Gly Ala Gln Ile Cys Ile Xaa  
1 5 10 15

Lys Val Cys Xaa Xaa Ser Xaa Xaa Arg Arg Xaa Gln  
20 25

<210> 67

<211> 399

<212> DNA

<213> *Conus purpurascens*

<220>

<221> CDS

<222> (1)..(213)

<400> 67

atg cag acg gcc tac tgg gtg atg gtg atg acg atg gtg tgg att aca 48  
Met Gln Thr Ala Tyr Trp Val Met Val Met Thr Met Val Trp Ile Thr  
1 5 10 15

gcc cct ctg tct gaa ggt gga aaa ctg aac gat gta att cgg ggt ttg 96  
Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
20 25 30

gtg cca gac gac tta gcc cta cag ctt atc ttg caa agt ccg gtt ttc 144  
Val Pro Asp Asp Leu Ala Leu Gln Leu Ile Leu Gln Ser Pro Val Phe  
35 40 45

cgt cgt caa tct gaa gag gaa aaa ata tgc ctc tgg aag ata tgt cca 192  
Arg Arg Gln Ser Glu Glu Lys Ile Cys Leu Trp Lys Ile Cys Pro  
50 55 60

cca ccc cca tgg aga cga tca taaggaaaaaaa aaaatgaatg acgtcagaca 243  
Pro Pro Pro Trp Arg Arg Ser  
65 70

accaccacaa ctgtaatacgt acatcggttaa tacgacttca gcaaacattt taacatcact 303

gtgggttgta agaaatcagt tgcttttagaa gcttggattt ttccttgttt aagagttgta 363

ctgatatcag ctctgcccta tgaaataaag ctgatg 399

<210> 68

<211> 71

<212> PRT

<213> *Conus purpurascens*

<400> 68

Met Gln Thr Ala Tyr Trp Val Met Val Met Thr Met Val Trp Ile Thr  
1 5 10 15

Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
20 25 30

Val Pro Asp Asp Leu Ala Leu Gln Leu Ile Leu Gln Ser Pro Val Phe

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35 40 45  
 Arg Arg Gln Ser Glu Glu Glu Lys Ile Cys Leu Trp Lys Ile Cys Pro  
 50 55 60  
 Pro Pro Pro Trp Arg Arg Ser  
 65 70  
 <210> 69  
 <211> 21  
 <212> PRT  
 <213> Conus purpurascens  
 <220>  
 <221> PEPTIDE  
 <222> (1)..(21)  
 <223> Xaa at residue 1 is Gln or pyro-Glu; Xaa at residues 3,4 adn 5 may be Glu or Gla; Xaa at residues 10 and 18 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residues 14, 15, 16 and 17 may be Pro or hydroxy-Pro  
 <400> 69  
 Xaa Ser Xaa Xaa Xaa Lys Ile Cys Leu Xaa Lys Ile Cys Xaa Xaa Xaa  
 1 5 10 15  
 Xaa Xaa Arg Arg Ser  
 20  
 <210> 70  
 <211> 398  
 <212> DNA  
 <213> Conus purpurascens  
 <220>  
 <221> CDS  
 <222> (1)..(213)  
 <400> 70  
 atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg tgg att aca 48  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1 5 10 15  
 gcc cct ctg tct gag ggt aga aaa ccg aac gat gta att cgg ggt ttg 96  
 Ala Pro Leu Ser Glu Gly Arg Lys Pro Asn Asp Val Ile Arg Gly Leu  
 20 25 30  
 gtg cca gat gac tta gcc cta cag ctt atc ttg caa agt cag gtt tcc 144  
 Val Pro Asp Asp Leu Ala Leu Gln Leu Ile Leu Gln Ser Gln Val Ser  
 35 40 45  
 cgt cgt gaa tct aat ggg gtg gaa ata tgc atg tgg aag gta tgt cca 192  
 Arg Arg Glu Ser Asn Gly Val Glu Ile Cys Met Trp Lys Val Cys Pro  
 50 55 60  
 cca tcc cca tgg aga cga tca taaggaaaaa aaatgaatga cgtcagacaa 243  
 Pro Ser Pro Trp Arg Arg Ser  
 65 70  
 ccaccacaac tgtaatacga catcggttaac acgacttcag caaacatttt aacatcactg 303  
 tggttgtgaa gaaatcagtt gctttaaaag attggatttt tccttggtta agagttgtac 363  
 tgatatcagc tctgccctat gaaataaagc tgatg 398

<210> 71  
 <211> 71  
 <212> PRT  
 <213> Conus purpurascens

<400> 71  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1 5 10 15  
 Ala Pro Leu Ser Glu Gly Arg Lys Pro Asn Asp Val Ile Arg Gly Leu  
 20 25 30  
 Val Pro Asp Asp Leu Ala Leu Gln Leu Ile Leu Gln Ser Gln Val Ser  
 35 40 45  
 Arg Arg Glu Ser Asn Gly Val Glu Ile Cys Met Trp Lys Val Cys Pro  
 50 55 60  
 Pro Ser Pro Trp Arg Arg Ser  
 65 70

<210> 72  
 <211> 21  
 <212> PRT  
 <213> Conus purpurascens

<220>  
 <221> PEPTIDE  
 <222> (1)..(21)  
 <223> Xaa at residue 1 is Gln or pyro-Glu; Xaa at residue 6 may be Glu  
 or Gla; Xaa at residues 10 and 18 may be Trp (D or L) or bromo-Trp  
 (D or L); Xaa at residues 14, 15 and 17 may be Pro or hydroxy-Pro

<400> 72  
 Xaa Ser Asn Gly Val Xaa Ile Cys Met Xaa Lys Val Cys Xaa Xaa Ser  
 1 5 10 15  
 Xaa Xaa Arg Arg Ser  
 20

<210> 73  
 <211> 409  
 <212> DNA  
 <213> Conus stercusmuscarum

<220>  
 <221> CDS  
 <222> (1)..(213)

<400> 73  
 atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg tgg att aca 48  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1 5 10 15  
 gcc cct ctg tct gaa ggt ggt aaa ttg acc gac gta att cgg ggt ttg 96  
 Ala Pro Leu Ser Glu Gly Gly Lys Leu Thr Asp Val Ile Arg Gly Leu  
 20 25 30  
 gtg cca cac atc tta acc cca cag cat atc ttg caa agt atg act tcc 144  
 Val Pro His Ile Leu Thr Pro Gln His Ile Leu Gln Ser Met Thr Ser  
 35 40 45  
 cgt ctt ggt att ggc agc agt gat caa aat gca caa ata tgc atc tgg 192

Arg Leu Gly Ile Gly Ser Ser Asp Gln Asn Ala Gln Ile Cys Ile Trp  
 50 55 60

aag gta tgt cca cca tcc cca tagagacgac cataaggaaa aagatgaatg 243  
 Lys Val Cys Pro Pro Ser Pro  
 65 70

acgtcagaca accgccacaa ctgtagtacg acatcgttga tacgacttca gcaaataattt 303  
 taacatcact gtggttgtga agaaatcagt tgctttaaaa gattggattt ttccttgattt 363  
 aagagttgta ctgatatcag ctctgccctg tgaaataaag ctgatg 409

<210> 74  
 <211> 71  
 <212> PRT  
 <213> Conus stercusmuscarum

<400> 74  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1 5 10 15  
 Ala Pro Leu Ser Glu Gly Gly Lys Leu Thr Asp Val Ile Arg Gly Leu  
 20 25 30  
 Val Pro His Ile Leu Thr Pro Gln His Ile Leu Gln Ser Met Thr Ser  
 35 40 45  
 Arg Leu Gly Ile Gly Ser Ser Asp Gln Asn Ala Gln Ile Cys Ile Trp  
 50 55 60  
 Lys Val Cys Pro Pro Ser Pro  
 65 70

<210> 75  
 <211> 22  
 <212> PRT  
 <213> Conus stercusmuscarum

<220>  
 <221> PEPTIDE  
 <222> (1)..(22)  
 <223> Xaa at residue 15 may be Trp or bromo-Trp; Xaa at residue 19, 20  
 and 22 may be Pro or hydroxy-Pro

<400> 75  
 Leu Gly Ile Gly Ser Ser Asp Gln Asn Ala Gln Ile Cys Ile Xaa Lys  
 1 5 10 15  
 Val Cys Xaa Xaa Ser Xaa  
 20

<210> 76  
 <211> 433  
 <212> DNA  
 <213> Conus baileyi

<220>  
 <221> CDS  
 <222> (1)..(216)

<400> 76  
 atg cag acg gcc tac tgg gtg atg gtg atg ata atg gtg tgg att aca 48  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Ile Met Val Trp Ile Thr



1 5 10 15

gtc cct ctg tct gaa ggt ggt aaa ttg aac gac ata att cgg ggt ttg 96  
Val Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Ile Ile Arg Gly Leu  
20 25 30

ttg cca gac aac ttc ccc cca cag ctt acc ttg cat cgt ctg gtt tcc 144  
Leu Pro Asp Asn Phe Pro Pro Gln Leu Thr Leu His Arg Leu Val Ser  
35 40 45

cgt cgt cat tct gac agc att att ctg agg ggc tta tgt atc tgg aag 192  
Arg Arg His Ser Asp Ser Ile Ile Leu Arg Gly Leu Cys Ile Trp Lys  
50 55 60

gtg tgt gaa cct ccg cca caa aga tgatctggtc caaagccaaa aaacgaatga 246  
Val Cys Glu Pro Pro Pro Gln Arg  
65 70

tgtagacaaa ccgccacagc tttagtagca catgggtaac acgacttcag caaatatttc 306

aacatcactg tgggtgtgaa gaaatcagtt actttaaaag attggaatga tgtagctgt 366

gcactatcaa ataaagttga tgtgacaaaa aaaaaaaaaa aaaaagtact ctgcgttggt 426

actcgag 433

<210> 77  
<211> 72  
<212> PRT  
<213> Conus baileyi

<400> 77  
Met Gln Thr Ala Tyr Trp Val Met Val Met Ile Met Val Trp Ile Thr  
1 5 10 15

Val Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Ile Ile Arg Gly Leu  
20 25 30

Leu Pro Asp Asn Phe Pro Pro Gln Leu Thr Leu His Arg Leu Val Ser  
35 40 45

Arg Arg His Ser Asp Ser Ile Ile Leu Arg Gly Leu Cys Ile Trp Lys  
50 55 60

Val Cys Glu Pro Pro Pro Gln Arg  
65 70

<210> 78  
<211> 22  
<212> PRT  
<213> Conus baileyi

<220>  
<221> PEPTIDE  
<222> (1)..(22)  
<223> Xaa at residue 13 may be Trp (D or L) or bromo-Trp (D or L); Xaa  
at residue 17 may be Glu or Gla; Xaa at residues 18, 19 and 20 ma  
y be Pro or hydroxy-Pro

<400> 78  
His Ser Asp Ser Ile Ile Leu Arg Gly Leu Cys Ile Xaa Lys Val Cys  
1 5 10 15

Xaa Xaa Xaa Xaa Gln Arg

20

<210> 79  
 <211> 413  
 <212> DNA  
 <213> Conus bocki

<220>  
 <221> CDS  
 <222> (1)..(270)

<400> 79  
 atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg tgg att aca 48  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1 5 10 15  
 gcc cct ctg tct gaa agt gat aaa ctg aac gac gta att cgg ggt ttg 96  
 Ala Pro Leu Ser Glu Ser Asp Lys Leu Asn Asp Val Ile Arg Gly Leu  
 20 25 30  
 gtg cca gac aac tta acc cca cag ctt atc ttg cga agt ctg att tcc 144  
 Val Pro Asp Asn Leu Thr Pro Gln Leu Ile Leu Arg Ser Leu Ile Ser  
 35 40 45  
 cgt cgt cgt tct gac aag gat gat ccg gga gga caa gaa tgt tac tgg 192  
 Arg Arg Arg Ser Asp Lys Asp Asp Pro Gly Gly Gln Glu Cys Tyr Trp  
 50 55 60  
 aac gta tgt gca cca aac cag gga gac cac atg atc tta aga aaa aag 240  
 Asn Val Cys Ala Pro Asn Gln Gly Asp His Met Ile Leu Arg Lys Lys  
 65 70 75 80  
 atg aat gac gac aga caa ccg cca caa ctg taatacgaca tcgttaatac 290  
 Met Asn Asp Asp Arg Gln Pro Pro Gln Leu  
 85 90  
 gacttcagca aatatitttaa catcactgtg gttgtgaaga aatcagttgc tttaaaagat 350  
 tggatttttc cgtgtttaag agctgtactg atatctgctc tgccctgtga aataaagctg 410  
 atg 413

<210> 80  
 <211> 90  
 <212> PRT  
 <213> Conus bocki

<400> 80  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1 5 10 15  
 Ala Pro Leu Ser Glu Ser Asp Lys Leu Asn Asp Val Ile Arg Gly Leu  
 20 25 30  
 Val Pro Asp Asn Leu Thr Pro Gln Leu Ile Leu Arg Ser Leu Ile Ser  
 35 40 45  
 Arg Arg Arg Ser Asp Lys Asp Asp Pro Gly Gly Gln Glu Cys Tyr Trp  
 50 55 60  
 Asn Val Cys Ala Pro Asn Gln Gly Asp His Met Ile Leu Arg Lys Lys  
 65 70 75 80  
 Met Asn Asp Asp Arg Gln Pro Pro Gln Leu  
 85 90

<210> 81  
 <211> 40  
 <212> PRT  
 <213> Conus bocki

<220>  
 <221> PEPTIDE  
 <222> (1)..(40)  
 <223> Xaa at residues 7, 19, 37, 38 may be Pro or hydroxy-Pro; Xaa at residue 11 may be Glu or Glu; Xaa at residue 14 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residue 13 may be Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr

<400> 81  
 Arg Ser Asp Lys Asp Asp Xaa Gly Gly Gln Xaa Cys Xaa Xaa Asn Val  
 1 5 10 15  
 Cys Ala Xaa Asn Gln Gly Asp His Met Ile Leu Arg Lys Lys Met Asn  
 20 25 30  
 Asp Asp Arg Gln Xaa Xaa Gln Leu  
 35 40

<210> 82  
 <211> 496  
 <212> DNA  
 <213> Conus chaldaeus

<220>  
 <221> CDS  
 <222> (21)..(260)

<400> 82  
 gaattcgccc ttatggatcc atg cag acg gcc tac tgg gtg atg atg ggg atg 53  
 Met Gln Thr Ala Tyr Trp Val Met Met Gly Met  
 1 5 10  
 atg atg gtg tgg att aca gcc cct ctg tct gga ggt ggt aaa ctg aac 101  
 Met Met Val Trp Ile Thr Ala Pro Leu Ser Gly Gly Gly Lys Leu Asn  
 15 20 25  
 gac gta att cgg ggt ttg gtg cca gac gac tta acc cta cag cgt atg 149  
 Asp Val Ile Arg Gly Leu Val Pro Asp Asp Leu Thr Leu Gln Arg Met  
 30 35 40  
 ttc gaa act ccg gtt tcc cat cgt ctt tct gag ggc aga aat tcg acg 197  
 Phe Glu Thr Pro Val Ser His Arg Leu Ser Glu Gly Arg Asn Ser Thr  
 45 50 55  
 gta cac ata tgt acg tgg aag gta tgt cca cct ccc cca tgg aga cga 245  
 Val His Ile Cys Thr Trp Lys Val Cys Pro Pro Pro Pro Trp Arg Arg  
 60 65 70 75  
 cca cat gga caa aga tgaatgacgt cagacaacct ccacaactgt agtacgacat 300  
 Pro His Gly Gln Arg  
 80  
 cgtaaacacg acgtcagcta atcttttaac atcactgtgg ctgtgaagaa ctcggttgct 360  
 ttaaaagatt ggatttttcc ttgtttaaga gttgtgctga tatgaactct gcactacgaa 420  
 ataaagctga tgtgacaaac aaaaaaaga aaaaaaaag tactctgcgt tggtactcga 480  
 gcttaagggc gaattc 496

<210> 83  
 <211> 80  
 <212> PRT  
 <213> Conus chaldaeus

<400> 83  
 Met Gln Thr Ala Tyr Trp Val Met Met Gly Met Met Met Val Trp Ile  
 1 5 10 15  
 Thr Ala Pro Leu Ser Gly Gly Gly Lys Leu Asn Asp Val Ile Arg Gly  
 20 25 30  
 Leu Val Pro Asp Asp Leu Thr Leu Gln Arg Met Phe Glu Thr Pro Val  
 35 40 45  
 Ser His Arg Leu Ser Glu Gly Arg Asn Ser Thr Val His Ile Cys Thr  
 50 55 60  
 Trp Lys Val Cys Pro Pro Pro Pro Trp Arg Arg Pro His Gly Gln Arg  
 65 70 75 80

<210> 84  
 <211> 29  
 <212> PRT  
 <213> Conus chaldaeus

<220>  
 <221> PEPTIDE  
 <222> (1)..(29)  
 <223> Xaa at residue 3 may be Glu or Gla; Xaa at residues 14 and 22 may  
 be Trp (D or L) or bromo-Trp (D or L); Xaa at residues 18, 19, 2  
 0, 21 and 25 may be Pro or hydroxy-Pro

<400> 84  
 Leu Ser Xaa Gly Arg Asn Ser Thr Val His Ile Cys Thr Xaa Lys Val  
 1 5 10 15  
 Cys Xaa Xaa Xaa Xaa Xaa Arg Arg Xaa His Gly Gln Arg  
 20 25

<210> 85  
 <211> 499  
 <212> DNA  
 <213> Conus chaldaeus

<220>  
 <221> CDS  
 <222> (21)..(260)

<400> 85  
 gaattcgccc ttatggatcc atg cag acg gcc tac tgg gtg atg atg ggg atg 53  
 Met Gln Thr Ala Tyr Trp Val Met Met Gly Met  
 1 5 10  
 atg atg gtg tgg att aca gcc cct ctg tct gga ggt ggt aaa ctg aac 101  
 Met Met Val Trp Ile Thr Ala Pro Leu Ser Gly Gly Gly Lys Leu Asn  
 15 20 25  
 gac gta att cgg ggt ttg gtg cca gac gac tta acc cta cag cgt atg 149  
 Asp Val Ile Arg Gly Leu Val Pro Asp Asp Leu Thr Leu Gln Arg Met  
 30 35 40  
 ttc gaa act ccg gtt tcc cat cgt ctt tct gag ggc aga aat tcg acg 197

Phe Glu Thr Pro Val Ser His Arg Leu Ser Glu Gly Arg Asn Ser Thr  
 45 50 55  
 gta cac ata tgt atg tgg aag gta tgt cca cct ccc cca tgg aga cga 245  
 Val His Ile Cys Met Trp Lys Val Cys Pro Pro Pro Pro Trp Arg Arg  
 60 65 70 75  
 cca cat gga caa aga tgaatgacgt cagacaacct ccacaactgt agtacgacat 300  
 Pro His Gly Gln Arg  
 80  
 cgттаacacg acgtcagcta atcttttaac atcactgtgg ttgtgaagaa atcggttgct 360  
 ttaaaagatt ggatttttcc ttgtttaaga gttgtgctga tatgaactct gcactacgaa 420  
 ataaagctga tgtgacaaac ggaaaaaaaa aaaaaaaaaa aagtactctg cgttgttact 480  
 cgagcttaag ggcgaattc 499  
 <210> 86  
 <211> 80  
 <212> PRT  
 <213> Conus chaldaeus  
 <400> 86  
 Met Gln Thr Ala Tyr Trp Val Met Met Gly Met Met Met Val Trp Ile  
 1 5 10 15  
 Thr Ala Pro Leu Ser Gly Gly Gly Lys Leu Asn Asp Val Ile Arg Gly  
 20 25 30  
 Leu Val Pro Asp Asp Leu Thr Leu Gln Arg Met Phe Glu Thr Pro Val  
 35 40 45  
 Ser His Arg Leu Ser Glu Gly Arg Asn Ser Thr Val His Ile Cys Met  
 50 55 60  
 Trp Lys Val Cys Pro Pro Pro Pro Trp Arg Arg Pro His Gly Gln Arg  
 65 70 75 80  
 <210> 87  
 <211> 29  
 <212> PRT  
 <213> Conus chaldaeus  
 <220>  
 <221> PEPTIDE  
 <222> (1)..(29)  
 <223> Xaa at residue 3 may be Glu or Gla; Xaa at residues 14 and 22 may  
 be Trp (D or L) or bromo-Trp (D or L); Xaa at residues 18, 19, 20,  
 21 and 25 may be Pro or hydroxy-Pro  
 <400> 87  
 Leu Ser Xaa Gly Arg Asn Ser Thr Val His Ile Cys Met Xaa Lys Val  
 1 5 10 15  
 Cys Xaa Xaa Xaa Xaa Xaa Arg Arg Xaa His Gly Gln Arg  
 20 25  
 <210> 88  
 <211> 490  
 <212> DNA  
 <213> Conus cinereus  
 <220>

&lt;221&gt; CDS

&lt;222&gt; (21)..(305)

&lt;400&gt; 88

```

gaatttcgccc ttatggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg      53
          Met Gln Thr Ala Tyr Trp Val Met Val Met Met
              1              5              10

```

```

ttg gtg tgg att aca gcc cct ctg cct gag ggt ggt aaa ccg aag cac      101
Leu Val Trp Ile Thr Ala Pro Leu Pro Glu Gly Gly Lys Pro Lys His
              15              20              25

```

```

gta att cgg ggt ttg gta cca gac gac tta acc cca cag cat atc ttg      149
Val Ile Arg Gly Leu Val Pro Asp Asp Leu Thr Pro Gln His Ile Leu
              30              35              40

```

```

cga agt ttg att tcc cgt cgt tca tct ggc tgc agt gtt tcg ttg ggc      197
Arg Ser Leu Ile Ser Arg Arg Ser Ser Gly Cys Ser Val Ser Leu Gly
              45              50              55

```

```

ttc aaa tgc ttc tgg aag agc tgt aca gta atc cca gtg aga cca ttt      245
Phe Lys Cys Phe Trp Lys Ser Cys Thr Val Ile Pro Val Arg Pro Phe
              60              65              70              75

```

```

gta tct ctg gaa gaa gaa aat gaa tgc cag aaa gtc caa ata agt gca      293
Val Ser Leu Glu Glu Glu Asn Glu Cys Gln Lys Val Gln Ile Ser Ala
              80              85              90

```

```

gta tgg ggt cct tgatacgact tcagcaagga tcactgtggt tgtgaagaaa      345
Val Trp Gly Pro
              95

```

```

tcagttgctt taaaagattt gatttttctt tgtttaagag ttgtactgat atcagctctg      405

```

```

tactatgaaa taaagctgat gtgacaaaaca aaaaaaaaaa aaaaaaaagt actctgcggt      465

```

```

gttactcgag cttaagggcg aattc      490

```

&lt;210&gt; 89

&lt;211&gt; 95

&lt;212&gt; PRT

&lt;213&gt; Conus cinereus

&lt;400&gt; 89

```

Met Gln Thr Ala Tyr Trp Val Met Val Met Met Leu Val Trp Ile Thr
1              5              10              15

```

```

Ala Pro Leu Pro Glu Gly Gly Lys Pro Lys His Val Ile Arg Gly Leu
              20              25              30

```

```

Val Pro Asp Asp Leu Thr Pro Gln His Ile Leu Arg Ser Leu Ile Ser
              35              40              45

```

```

Arg Arg Ser Ser Gly Cys Ser Val Ser Leu Gly Phe Lys Cys Phe Trp
              50              55              60

```

```

Lys Ser Cys Thr Val Ile Pro Val Arg Pro Phe Val Ser Leu Glu Glu
              65              70              75              80

```

```

Glu Asn Glu Cys Gln Lys Val Gln Ile Ser Ala Val Trp Gly Pro
              85              90              95

```

&lt;210&gt; 90

&lt;211&gt; 45

&lt;212&gt; PRT

<213> Conus cinereus

<220>

<221> PEPTIDE

<222> (1)..(45)

<223> Xaa at residues 14 and 43 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residues 21, 24 and 45 may be Pro or hydroxy-Pro; Xaa at residues 29, 30, 31 and 33 may be Glu or Glu

<400> 90

Ser Ser Gly Cys Ser Val Ser Leu Gly Phe Lys Cys Phe Xaa Lys Ser  
1 5 10 15

Cys Thr Val Ile Xaa Val Arg Xaa Phe Val Ser Leu Xaa Xaa Xaa Asn  
20 25 30

Xaa Cys Gln Lys Val Gln Ile Ser Ala Val Xaa Gly Xaa  
35 40 45

<210> 91

<211> 497

<212> DNA

<213> Conus cinereus

<220>

<221> CDS

<222> (21)..(263)

<400> 91

gaattcgccc ttatggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg 53  
Met Gln Thr Ala Tyr Trp Val Met Val Met Met  
1 5 10

gtg gtg gtg tgg att aca gcc cct ctg cct gaa ggt ggt aaa ccg gag 101  
Val Val Val Trp Ile Thr Ala Pro Leu Pro Glu Gly Gly Lys Pro Glu  
15 20 25

cac gta att cgg ggt ttg gtg cca gac gac tta acc cca cag ctt atc 149  
His Val Ile Arg Gly Leu Val Pro Asp Asp Leu Thr Pro Gln Leu Ile  
30 35 40

ttg cga agt ctg att tcc cgt cgt agt tct gac ggc aag gca aaa aga 197  
Leu Arg Ser Leu Ile Ser Arg Arg Ser Ser Asp Gly Lys Ala Lys Arg  
45 50 55

aat tgt ttc tgg aag gca tgt gta cca gaa caa tgg aga caa cgt gat 245  
Asn Cys Phe Trp Lys Ala Cys Val Pro Glu Gln Trp Arg Gln Arg Asp  
60 65 70 75

ctt aag gaa aaa gat gaa tgatgtcaga caaccgccat cactgtagta 293  
Leu Lys Glu Lys Asp Glu  
80

tgacatcggt aatacgactt aagcaaatat ttaacatca ctgtggatct gaagaaatca 353

gttgctttta aagattggat ttttcctcgt ttaagagttg tactgatgtc agctctgcac 413

tgtgaaataa agctgatgtg acaaacgaaa aaaaaaaaaa aaaaaaagta ctctgcggtg 473

ttactcgagc ttaagggcga attc 497

<210> 92

<211> 81

<212> PRT

<213> Conus cinereus

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&lt;400&gt; 92

Met Gln Thr Ala Tyr Trp Val Met Val Met Met Val Val Val Trp Ile  
 1 5 10 15

Thr Ala Pro Leu Pro Glu Gly Gly Lys Pro Glu His Val Ile Arg Gly  
 20 25 30

Leu Val Pro Asp Asp Leu Thr Pro Gln Leu Ile Leu Arg Ser Leu Ile  
 35 40 45

Ser Arg Arg Ser Ser Asp Gly Lys Ala Lys Arg Asn Cys Phe Trp Lys  
 50 55 60

Ala Cys Val Pro Glu Gln Trp Arg Gln Arg Asp Leu Lys Glu Lys Asp  
 65 70 75 80

Glu

&lt;210&gt; 93

&lt;211&gt; 30

&lt;212&gt; PRT

&lt;213&gt; Conus cinereus

&lt;220&gt;

&lt;221&gt; PEPTIDE

&lt;222&gt; (1)..(30)

<223> Xaa at residues 12 and 20 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residue 17 may be Pro or hydroxy-Pro; Xaa at residues 18, 27 and 30 may be Glu or Gla

&lt;400&gt; 93

Ser Ser Asp Gly Lys Ala Lys Arg Asn Cys Phe Xaa Lys Ala Cys Val  
 1 5 10 15

Xaa Xaa Gln Xaa Arg Gln Arg Asp Leu Lys Xaa Lys Asp Xaa  
 20 25 30

&lt;210&gt; 94

&lt;211&gt; 496

&lt;212&gt; DNA

&lt;213&gt; Conus cinereus

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (21)..(263)

&lt;400&gt; 94

gaattcgccc ttatggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg 53  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met  
 1 5 10

atg gtg gtg tgg att aca gcc cct ctg cct gaa ggt ggt aaa ccg aag 101  
 Met Val Val Trp Ile Thr Ala Pro Leu Pro Glu Gly Gly Lys Pro Lys  
 15 20 25

cac gta att cgg ggt ttg gtg cca gac gac tta acc cca cag ctt atc 149  
 His Val Ile Arg Gly Leu Val Pro Asp Asp Leu Thr Pro Gln Leu Ile  
 30 35 40

ttg cga agt ctg att tcc cgt cgt agt tct gac ggc aag gca aaa aga 197  
 Leu Arg Ser Leu Ile Ser Arg Arg Ser Ser Asp Gly Lys Ala Lys Arg  
 45 50 55



cct aag gaa aaa gat gaa tgatgtcaga caaccgccat cactgtagta 293  
Pro Lys Glu Lys Asp Glu  
80

gttgctttaa aagattgga tttcctcgt ttaagaattg tactgatgac agctctgcac 413

tactcgaqct taagggcgaa ttc 496

```
<210> 95
<211> 81
<212> PRT
<213> Conus cinereus
```

```
<400> 95
Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Val Trp Ile
1             5             10             15
```

Thr Ala Pro Leu Pro Glu Gly Gly Lys Pro Lys His Val Ile Arg Gly  
20 25 30

Leu Val Pro Asp Asp Leu Thr Pro Gln Leu Ile Leu Arg Ser Leu Ile  
35 40 45

Ser Arg Arg Ser Ser Asp Gly Lys Ala Lys Arg Asn Cys Phe Trp Lys  
50 55 60

Ala Cys Val Pro Glu Gln Trp Arg Gln Arg Asp Pro Lys Glu Lys Asp  
65 70 75 80

Glu

```
<210> 96
<211> 30
<212> PRT
<213> Conus cinereus
```

```
<220>
<221> PEPTIDE
<222> (1)..(30)
<223> Xaa at residues 12 and 20 may be Trp (D or L) or bromo-Trp (D or
L); Xaa at residues 17 and 25 may be Pro or hydroxy-Pro; Xaa at r
esidues 18, 27 and 30 may be Glu or Gla
```

```
<400> 96
Ser Ser Asp Gly Lys Ala Lys Arg Asn Cys Phe Xaa Lys Ala Cys Val
1          5          10          15
```

Xaa Xaa Gln Xaa Arg Gln Arg Asp Xaa Lys Xaa Lys Asp Xaa  
20 25 30

```
<210> 97
<211> 493
<212> DNA
<213> Conus cinereus
<220>
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<222> (1)..(30)  
 <223> Xaa at residues 12 and 20 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residue 17 may be Pro or hydroxy-Pro; Xaa at residues 27 and 30 may be Glu or Gla  
  
 <400> 99  
 Ser Ser Asp Gly Lys Ala Lys Lys Gln Cys Ala Xaa Lys Thr Cys Val  
 1 5 10 15  
  
 Xaa Thr Gln Xaa Arg Arg Arg Asp Leu Lys Xaa Lys Asp Xaa  
 20 25 30  
  
 <210> 100  
 <211> 496  
 <212> DNA  
 <213> Conus circumciscus  
  
 <220>  
 <221> CDS  
 <222> (21)..(263)  
  
 <400> 100  
 gaattcgccc ttatggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg 53  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met  
 1 5 10  
  
 atg gtg tgg att aca gcc cct ctg tct gaa ggt ggt aaa ttg aac gac 101  
 Met Val Trp Ile Thr Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp  
 15 20 25  
  
 gta att cgg ggt ttg gtg cca cac atc tta acc cca cag cat atc ttg 149  
 Val Ile Arg Gly Leu Val Pro His Ile Leu Thr Pro Gln His Ile Leu  
 30 35 40  
  
 caa ggt ctg act tcc cgt ctt cgt tct gac agc agt ggt cag aaa gga 197  
 Gln Gly Leu Thr Ser Arg Leu Arg Ser Asp Ser Ser Gly Gln Lys Gly  
 45 50 55  
  
 gca caa ata tgc atc tgg aag gta tgt cca cta tcc cca tgg aga cga 245  
 Ala Gln Ile Cys Ile Trp Lys Val Cys Pro Leu Ser Pro Trp Arg Arg  
 60 65 70 75  
  
 cca caa gga aaa gat gaa tgacgtcaga caaccgctac aactgtagta 293  
 Pro Gln Gly Lys Asp Glu  
 80  
  
 cgacatcggt gatacgactt cagcaaatat ttttaacatca ctgtggttgt gaagaaatca 353  
 gctgctttaa aagattggat ttttccttgt ttaagagttg tactgatatc agctctgcac 413  
 tatgaaataa agctgatgtg acaaacacaaaa aaaaaaaagtac tctgcgttgt 473  
 tactcgagct taagggcgaa ttc 496  
  
 <210> 101  
 <211> 81  
 <212> PRT  
 <213> Conus circumciscus  
  
 <400> 101  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1 5 10 15  
  
 Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu

20 25 30

Val Pro His Ile Leu Thr Pro Gln His Ile Leu Gln Gly Leu Thr Ser  
35 40 45

Arg Leu Arg Ser Asp Ser Ser Gly Gln Lys Gly Ala Gln Ile Cys Ile  
50 55 60

Trp Lys Val Cys Pro Leu Ser Pro Trp Arg Arg Pro Gln Gly Lys Asp  
65 70 75 80

Glu

<210> 102  
<211> 32  
<212> PRT  
<213> Conus circumciscus

<220>  
<221> PEPTIDE  
<222> (1)..(32)  
<223> Xaa at residues 16 and 24 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residues 20, 23 and 27 may be Pro or hydroxy-Pro; Xaa at residue 32 may be Glu or Gla

<400> 102  
Leu Arg Ser Asp Ser Ser Gly Gln Lys Gly Ala Gln Ile Cys Ile Xaa  
1 5 10 15

Lys Val Cys Xaa Leu Ser Xaa Xaa Arg Arg Xaa Gln Gly Lys Asp Xaa  
20 25 30

<210> 103  
<211> 496  
<212> DNA  
<213> Conus consors

<220>  
<221> CDS  
<222> (21)..(242)

<400> 103  
gaattcgccc ttatggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg 53  
Met Gln Thr Ala Tyr Trp Val Met Val Met Met  
1 5 10

atg gtg tgg att aca gcc cct ctg tct gaa ggt ggt aaa ttg aac gac 101  
Met Val Trp Ile Thr Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp  
15 20 25

gta att cgg ggt ttg gtg cca cac ttc tta acc cca cag cat atc ttg 149  
Val Ile Arg Gly Leu Val Pro His Phe Leu Thr Pro Gln His Ile Leu  
30 35 40

caa agt ctg act tcc cgt aat ggt tct ggc agc agt aat cag aaa gaa 197  
Gln Ser Leu Thr Ser Arg Asn Gly Ser Gly Ser Ser Asn Gln Lys Glu  
45 50 55

gca caa cta tgc atc tgg aag gta tgt cca cca acc cca tgg aga 242  
Ala Gln Leu Cys Ile Trp Lys Val Cys Pro Thr Pro Trp Arg  
60 65 70

tgaccacaag gaaaaagatg aacggcgtca gacaaccgcc acaactgtag tgggacatcg 302

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```

ttgatacgac ttcagcaaatt attttaacat cactgtgggt gtgaagaaat cagttgtttt 362
aaaagattgg atttttcctt gtttaagagt tgtactgata tcagctctgc actatgaaat 422
aaagctgatg tgacaagcaa aaaaaaaaaa aaaaaaagta ctctgcgttg ttactcgagc 482
ttaaggcgca attc 496

```

```

<210> 104
<211> 74
<212> PRT
<213> Conus consors

```

```

<400> 104
Met Gln Thr Ala Tyr Trp Val Met Val Met Met Val Trp Ile Thr
1          5          10          15
Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu
          20          25          30
Val Pro His Phe Leu Thr Pro Gln His Ile Leu Gln Ser Leu Thr Ser
          35          40          45
Arg Asn Gly Ser Gly Ser Ser Asn Gln Lys Glu Ala Gln Leu Cys Ile
          50          55          60
Trp Lys Val Cys Pro Pro Thr Pro Trp Arg
65          70

```

```

<210> 105
<211> 25
<212> PRT
<213> Conus consors

```

```

<220>
<221> PEPTIDE
<222> (1)..(25)
<223> Xaa at residue 10 may be Glu or Gla ; Xaa at residues 16 and 24 m
ay be Trp (D or L) or bromo-Trp (D or L); Xaa at residues 20, 21
and 23 may be Pro or hydroxy-Pro

```

```

<400> 105
Asn Gly Ser Gly Ser Ser Asn Gln Lys Xaa Ala Gln Leu Cys Ile Xaa
1          5          10          15
Lys Val Cys Xaa Xaa Thr Xaa Xaa Arg
          20          25

```

```

<210> 106
<211> 496
<212> DNA
<213> Conus consors

```

```

<220>
<221> CDS
<222> (21)..(242)

```

```

<400> 106
gaattcgccc ttatggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg 53
          Met Gln Thr Ala Tyr Trp Val Met Val Met Met
          1          5          10
atg gtg tgg att aca gcc cct ctg tct gaa ggt ggt aaa ctg aac ggc 101
Met Val Trp Ile Thr Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Gly

```

15 20 25  
 gta att cgg ggt ttg gtg tca cac atc tta atc cca cag cat acc ttg 149  
 Val Ile Arg Gly Leu Val Ser His Ile Leu Ile Pro Gln His Thr Leu  
 30 35 40  
 cga agt ctg act tcc cgt gat cgt tct gac aac ggt ggt tcg agt gga 197  
 Arg Ser Leu Thr Ser Arg Asp Arg Ser Asp Asn Gly Gly Ser Ser Gly  
 45 50 55  
 gca caa ata tgc atc tgg aag gta tgt cca cca tcc cca tgg aaa 242  
 Ala Gln Ile Cys Ile Trp Lys Val Cys Pro Pro Ser Pro Trp Lys  
 60 65 70  
 tgaccacaag gaaaaagatg aacggcgtca gacaaccacc acaactgtag tgggacatcg 302  
 ttgatacgac ttcagcaaatt attttaacat cactgtggtc gtgaagaaat cagttgcttt 362  
 aaaagattgg atttttcctt gtttaagagt tgtactgata tcagctctgc actatgaaat 422  
 aaagctgatg tgacaaacaa aaaaaaaaaa aaaaaaagta ctctgcgttg ttactcgagc 482  
 ttaagggcga attc 496  
 <210> 107  
 <211> 74  
 <212> PRT  
 <213> Conus consors  
 <400> 107  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1 5 10 15  
 Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Gly Val Ile Arg Gly Leu  
 20 25 30  
 Val Ser His Ile Leu Ile Pro Gln His Thr Leu Arg Ser Leu Thr Ser  
 35 40 45  
 Arg Asp Arg Ser Asp Asn Gly Gly Ser Ser Gly Ala Gln Ile Cys Ile  
 50 55 60  
 Trp Lys Val Cys Pro Pro Ser Pro Trp Lys  
 65 70  
 <210> 108  
 <211> 25  
 <212> PRT  
 <213> Conus consors  
 <220>  
 <221> PEPTIDE  
 <222> (1)..(25)  
 <223> Xaa at residues 16 and 24 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residues 20, 21 and 23 may be Pro or hydroxy-Pro  
 <400> 108  
 Asp Arg Ser Asp Asn Gly Gly Ser Ser Gly Ala Gln Ile Cys Ile Xaa  
 1 5 10 15  
 Lys Val Cys Xaa Xaa Ser Xaa Xaa Lys  
 20 25  
 <210> 109

<211> 459  
 <212> DNA  
 <213> Conus coronatus

<220>  
 <221> CDS  
 <222> (1)..(240)

<400> 109  
 atg cag acg gcc tac tgg gtg atg atg atg atg atg atg atg atg atg atg 48  
 Met Gln Thr Ala Tyr Trp Val Met Met Met Met Met Met Met Met Met Met  
 1 5 10 15  
 aca gcc cct ctg tct gaa ggt ggt aaa ctg aac gac gta att cgg ggt 96  
 Thr Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly  
 20 25 30  
 ttg gtg cca gac gac tta acc cta cag cgt atg ttc aaa gct ctg gtt 144  
 Leu Val Pro Asp Asp Leu Thr Leu Gln Arg Met Phe Lys Ala Leu Val  
 35 40 45  
 tcc cat cgt ctt tct gac ggc aga gat tgg acg gga tac ata tgt atc 192  
 Ser His Arg Leu Ser Asp Gly Arg Asp Trp Thr Gly Tyr Ile Cys Ile  
 50 55 60  
 tgg aag gca tgt cca cgt ccc cca tgg atc cca cca aag gga aaa aga 240  
 Trp Lys Ala Cys Pro Arg Pro Pro Trp Ile Pro Pro Lys Gly Lys Arg  
 65 70 75 80  
 tgaatgacgt cagacaaccg ccacaactgt agtacgacat cgtaaacaca acttcagcta 300  
 atattttaac atcactgtgg ttgtgaagaa atcggttgct ttaaaagatt gaatttttcg 360  
 tttaagagtt gtgctgatac gagctctgca ctatgaaata aagctgatgt gacaaacaaa 420  
 aaaaaaaaaa aaaaaaagta ctctgcgttg ttactcgag 459

<210> 110  
 <211> 80  
 <212> PRT  
 <213> Conus coronatus

<400> 110  
 Met Gln Thr Ala Tyr Trp Val Met Met Met Met Met Met Met Val Trp Ile  
 1 5 10 15  
 Thr Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly  
 20 25 30  
 Leu Val Pro Asp Asp Leu Thr Leu Gln Arg Met Phe Lys Ala Leu Val  
 35 40 45  
 Ser His Arg Leu Ser Asp Gly Arg Asp Trp Thr Gly Tyr Ile Cys Ile  
 50 55 60  
 Trp Lys Ala Cys Pro Arg Pro Pro Trp Ile Pro Pro Lys Gly Lys Arg  
 65 70 75 80

<210> 111  
 <211> 26  
 <212> PRT  
 <213> Conus coronatus

<220>  
 <221> PEPTIDE

GenBank

<223> Xaa at residues 7, 14 and 22 may be Trp or bromo-Trp; Xaa at residue 10 may be Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr; Xaa at residues 18, 29, 21, 24 and 25 may be Pro or hydroxy-Pro

Leu Ser Asp Gly Arg Asp Xaa Thr Gly Xaa Ile Cys Ile Xaa Lys Ala  
1 5 10 15

```
<210> 112
<211> 495
<212> DNA
<213> Conus ebraeus
```

<222> (21) .. (236)

gaattcgccc ttatggatcc atg cag acg gcc tac tgg gtg atg atg atg atg 53  
Met Gln Thr Ala Tyr Trp Val Met Met Met Met  
1 5 10

atg	atg	gtg	tgg	att	aca	gcc	cct	ctg	tct	gaa	ggc	ggg	aaa	ctg	aac	101
Met	Met	Val	Trp	Ile	Thr	Ala	Pro	Leu	Ser	Glu	Gly	Gly	Lys	Leu	Asn	
			15					20					25			

gac gta att cgg ggt ttg gtg cca gac gac tta acc cta cag cgt atg 149  
Asp Val Ile Arg Gly Leu Val Pro Asp Asp Leu Thr Leu Gln Arg Met  
30 35 40

ttc aaa agt ctg ttt tcc cat cgt ctt tct ggc ggc aca tat tct agg 197  
Phe Lys Ser Leu Phe Ser His Arg Leu Ser Gly Gly Thr Tyr Ser Arg  
45 50 55

gta gac aca tgc atc tgg aag gta tgt cca caa tct cca tagggacgat 246.  
Val Asp Thr Cys Ile Trp Lys Val Cys Pro Gln Ser Pro  
60 65 70

catatgqaaa aagatgagtg acatcagaca actgccacaa ctgtagtacg acatcgttaa 306

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gattggattt ttcttggtt aagagttgtg ctgatatgag ctctgcacta tgaaataaag 426

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ggcgaattc 495

<213> Conus ebraeus

Met Gln Thr Ala Tyr Trp Val Met Met Met Met Met Val Trp Ile  
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Thr Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly  
20 25 30



Leu Val Pro Asp Asp Leu Thr Leu Gln Arg Met Phe Lys Ser Leu Phe  
35 40 45

Ser His Arg Leu Ser Gly Gly Thr Tyr Ser Arg Val Asp Thr Cys Ile  
50 55 60

Trp Lys Val Cys Pro Gln Ser Pro  
65 70

<210> 114

<211> 21

<212> PRT

<213> Conus ebraeus

<220>

<221> PEPTIDE

<222> (1)..(21)

<223> Xaa at residue 6 may be Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr; Xaa at residue 14 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residues 18 and 21 may be Pro or hydroxy-Pro

<400> 114

Leu Ser Gly Gly Thr Xaa Ser Arg Val Asp Thr Cys Ile Xaa Lys Val  
1 5 10 15

Cys Xaa Gln Ser Xaa  
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<210> 115

<211> 537

<212> DNA

<213> Conus geographus

<220>

<221> CDS

<222> (21)..(299)

<400> 115

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1 5 10

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Met Val Cys Ile Thr Ala Pro Leu Pro Glu Gly Gly Lys Pro Asn Ser  
15 20 25

gga att cgg ggt ttg gtg cca aac gac tta act cca cag cat acc ttg 149  
Gly Ile Arg Gly Leu Val Pro Asn Asp Leu Thr Pro Gln His Thr Leu  
30 35 40

cga agt ctg att tcc cgt cgt caa act gac gtt ctt ctg gag gct acc 197  
Arg Ser Leu Ile Ser Arg Arg Gln Thr Asp Val Leu Leu Glu Ala Thr  
45 50 55

ctt ttg aca aca cca gcc ccc gag cag aga ttg ttc tgc ttc tgg aag 245  
Leu Leu Thr Thr Pro Ala Pro Glu Gln Arg Leu Phe Cys Phe Trp Lys  
60 65 70 75

tca tgt acg tgg agg ccc tac cct tgg aga cga cgt gat ctt aat gga 293  
Ser Cys Thr Trp Arg Pro Tyr Pro Trp Arg Arg Asp Leu Asn Gly  
80 85 90

aaa cga tgaatgacgc cagacaaccg ccacaactgt agtacgacat cgtaataacg 349

Lys Arg

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acttcagcaa acattttaac ataactgtgg ttgtgaagaa atcagttgct ttaaaagatt 409
ggattttttcc ttgtttcaga gttgtactga tatgagctct gcaccatgaa ataaagctga 469
agtgcgaac aaaaaaaaaa aaaaaaaaaa agtactctgc gttgttactc gagcttaagg 529
gcgaattc 537

```

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<210> 116
<211> 93
<212> PRT
<213> Conus geographus

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<400> 116
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Ala Pro Leu Pro Glu Gly Gly Lys Pro Asn Ser Gly Ile Arg Gly Leu
          20          25          30
Val Pro Asn Asp Leu Thr Pro Gln His Thr Leu Arg Ser Leu Ile Ser
          35          40          45
Arg Arg Gln Thr Asp Val Leu Leu Glu Ala Thr Leu Leu Thr Thr Pro
          50          55          60
Ala Pro Glu Gln Arg Leu Phe Cys Phe Trp Lys Ser Cys Thr Trp Arg
          65          70          75          80
Pro Tyr Pro Trp Arg Arg Arg Asp Leu Asn Gly Lys Arg
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<210> 117
<211> 40
<212> PRT
<213> Conus geographus

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<220>
<221> PEPTIDE
<222> (1)..(40)
<223> Xaa at residue 1 is Gln or pyro-Glu; Xaa at residues 7 and 17 may
      be Glu or Gla; Xaa at residues 14, 16, 31 and 33 may be Pro or h
      ydroxy-Pro; Xaa at residues 24, 29 and 34 may be Trp (D or L) or
      bromo-Trp (D or L)

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<220>
<221> PEPTIDE
<222> (1)..(40)
<223> Xaa at residue 32 may be Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Ty
      r, O-sulpho-Tyr or O-phospho-Tyr

```

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<400> 117
Xaa Thr Asp Val Leu Leu Xaa Ala Thr Leu Leu Thr Thr Xaa Ala Xaa
1          5          10          15
Xaa Gln Arg Leu Phe Cys Phe Xaa Lys Ser Cys Thr Xaa Arg Xaa Xaa
          20          25          30
Xaa Xaa Arg Arg Arg Asp Leu Asn
          35          40

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<210> 118  
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 <213> Conus gladiator

<220>  
 <221> CDS  
 <222> (1)..(246)

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 gtc cct cga tct gaa ggt ggc acg tgg aac tac tta att cgg ggt ttg 96  
 Val Pro Arg Ser Glu Gly Gly Thr Trp Asn Tyr Leu Ile Arg Gly Leu  
 20 25 30  
 gtg cca gac gac cta acc cca cag ctt acc ttg cat cgt ctg gtt acc 144  
 Val Pro Asp Asp Leu Thr Pro Gln Leu Thr Leu His Arg Leu Val Thr  
 35 40 45  
 cgt cgt cat cct gcc aac gtt aga cag cag ggg aaa ata tgt gta tgg 192  
 Arg Arg His Pro Ala Asn Val Arg Gln Gln Gly Lys Ile Cys Val Trp  
 50 55 60  
 aag gtg tgt cca cca tgg cca gta aga tca cct ggt cca cag cca aaa 240  
 Lys Val Cys Pro Pro Trp Pro Val Arg Ser Pro Gly Pro Gln Pro Lys  
 65 70 75 80  
 aac aaa tgacgtcaga caaccgccac aacttttagta cgacatcgtt gatacaactt 296  
 Asn Lys  
 cagcaagtat tttaacatca ctgtggctct gaagaaatca gttgctttta aagattggat 356  
 ttttccttgt tttagagttt tactgatatc agctctgcac tatgaaataa agatgtgacg 416  
 aaaaaaaaaa aaaaaaaaaag tactctgcgt tggtactcga g 457

<210> 119  
 <211> 82  
 <212> PRT  
 <213> Conus gladiator

<400> 119  
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 1 5 10 15  
 Val Pro Arg Ser Glu Gly Gly Thr Trp Asn Tyr Leu Ile Arg Gly Leu  
 20 25 30  
 Val Pro Asp Asp Leu Thr Pro Gln Leu Thr Leu His Arg Leu Val Thr  
 35 40 45  
 Arg Arg His Pro Ala Asn Val Arg Gln Gln Gly Lys Ile Cys Val Trp  
 50 55 60  
 Lys Val Cys Pro Pro Trp Pro Val Arg Ser Pro Gly Pro Gln Pro Lys  
 65 70 75 80  
 Asn Lys

<210> 120

<211> 32  
 <212> PRT  
 <213> Conus gladiator

<220>  
 <221> PEPTIDE  
 <222> (1)..(32)  
 <223> Xaa at residues 3, 18, 19, 21, 25, 27 and 29 may be Pro or hydrox  
 y-Pro; Xaa at residues 14 and 20 may be Trp (D or L) or bromo-Trp  
 (D or L)

<400> 120  
 His Xaa Ala Asn Val Arg Gln Gln Gly Lys Ile Cys Val Xaa Lys Val  
 1 5 10 15  
 Cys Xaa Xaa Xaa Xaa Val Arg Ser Xaa Gly Xaa Gln Xaa Lys Asn Lys  
 20 25 30

<210> 121  
 <211> 459  
 <212> DNA  
 <213> Conus gladiator

<220>  
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 <222> (1)..(246)

<400> 121  
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 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Val Thr  
 1 5 10 15  
 gtc cct cga tct gaa ggt ggc acg tgg aac tac tta att cgg ggt ttg 96  
 Val Pro Arg Ser Glu Gly Gly Thr Trp Asn Tyr Leu Ile Arg Gly Leu  
 20 25 30  
 gtg cca gac gac cta acc cca cag ctt acc ttg cat cgt ctg gtt acc 144  
 Val Pro Asp Asp Leu Thr Pro Gln Leu Thr Leu His Arg Leu Val Thr  
 35 40 45  
 cgt cgt cat cct gcc aac gtt aga cag cag ggg aaa ata tgt gta tgg 192  
 Arg Arg His Pro Ala Asn Val Arg Gln Gln Gly Lys Ile Cys Val Trp  
 50 55 60  
 aag gtg tgt cca cca tcg cca gta aga tca cct ggt cca ctg cca aaa 240  
 Lys Val Cys Pro Pro Ser Pro Val Arg Ser Pro Gly Pro Leu Pro Lys  
 65 70 75 80  
 aac aaa tgacgtcaga caaccgccac aacttttagta cgacatcggt gatacaactt 296  
 Asn Lys  
 cagcaagtat ttttaacatca ctgtggctct gaagaaatca gttgctttta aagattggat 356  
 ttttccttgt ttttagagttt tactgatatc agctctgcac tatgaaataa agatgtgacg 416  
 gacaaaaaaaa aaaaaaaaaa agtactctgc gttgttactc gag 459

<210> 122  
 <211> 82  
 <212> PRT  
 <213> Conus gladiator

<400> 122

Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Val Thr  
 1 5 10 15  
 Val Pro Arg Ser Glu Gly Gly Thr Trp Asn Tyr Leu Ile Arg Gly Leu  
 20 25 30  
 Val Pro Asp Asp Leu Thr Pro Gln Leu Thr Leu His Arg Leu Val Thr  
 35 40 45  
 Arg Arg His Pro Ala Asn Val Arg Gln Gln Gly Lys Ile Cys Val Trp  
 50 55 60  
 Lys Val Cys Pro Pro Ser Pro Val Arg Ser Pro Gly Pro Leu Pro Lys  
 65 70 75 80

Asn Lys

<210> 123  
 <211> 32  
 <212> PRT  
 <213> Conus gladiator  
 <220>  
 <221> PEPTIDE  
 <222> (1)..(32)  
 <223> Xaa at residues 2, 18, 19, 21, 25, 27 and 29 may be Pro or hydrox  
 y-Pro; Xaa at residue 14 may be Trp (D or L) or bromo-Trp (D or L  
 )

<400> 123  
 His Xaa Ala Asn Val Arg Gln Gln Gly Lys Ile Cys Val Xaa Lys Val  
 1 5 10 15  
 Cys Xaa Xaa Ser Xaa Val Arg Ser Xaa Gly Xaa Leu Xaa Lys Asn Lys  
 20 25 30

<210> 124  
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 <212> DNA  
 <213> Conus litoglyphus

<220>  
 <221> CDS  
 <222> (21)..(254)

<400> 124  
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 1 5 10  
 atg gtg tgg att aca gcc cct ctg tct gaa ggt gat aaa ttg aac gac 101  
 Met Val Trp Ile Thr Ala Pro Leu Ser Glu Gly Asp Lys Leu Asn Asp  
 15 20 25  
 gta att cgg ggt ttg gtg cca gat aac tta gcc cca cag ctt gtt ttg 149  
 Val Ile Arg Gly Leu Val Pro Asp Asn Leu Ala Pro Gln Leu Val Leu  
 30 35 40  
 caa agt ctg gat tcc cgt cgt cat cct cac ggc att cgt cag gat gga 197  
 Gln Ser Leu Asp Ser Arg Arg His Pro His Gly Ile Arg Gln Asp Gly  
 45 50 55  
 gcc caa ata tgt atc tgg aag ata tgt cca cca tcc cca tgg aga cga 245  
 Ala Gln Ile Cys Ile Trp Lys Ile Cys Pro Pro Ser Pro Trp Arg Arg

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Leu Gly Ser				
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gtgaagaaat cagttgcttt aaaagattgg atttgtcctt gttaaagagt tgtactgatg				414
tcattctctgc actatgaaat aaagctgatg tgaaaaaaaa aaaaaaaagt actctgcggtt				474
gttactcgag cttaagggcg aattc				499
<210> 125				
<211> 78				
<212> PRT				
<213> Conus litoglyphus				
<400> 125				
Met	Gln	Thr	Ala	Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr
1			5	10 15
Ala	Pro	Leu	Ser Glu Gly Asp Lys	Leu Asn Asp Val Ile Arg Gly Leu
		20		25 30
Val	Pro	Asp Asn	Leu Ala Pro Gln	Leu Val Leu Gln Ser Leu Asp Ser
		35	40	45
Arg	Arg	His Pro	His Gly Ile Arg Gln Asp Gly	Ala Gln Ile Cys Ile
		50	55	60
Trp	Lys	Ile Cys	Pro Pro Ser Pro	Trp Arg Arg Leu Gly Ser
	65		70	75
<210> 126				
<211> 28				
<212> PRT				
<213> Conus litoglyphus				
<220>				
<221> PEPTIDE				
<222> (1)..(28)				
<223> Xaa at residues 2, 19, 20 and 22 may be Pro or hydroxy-Pro; Xaa at residues 15 and 23 may be Trp (D or L) or bromo-Trp (D or L)				
<400> 126				
His	Xaa	His	Gly Ile Arg Gln Asp Gly	Ala Gln Ile Cys Ile Xaa Lys
1			5	10 15
Ile	Cys	Xaa Xaa	Ser Xaa Xaa Arg	Arg Leu Gly Ser
		20		25
<210> 127				
<211> 507				
<212> DNA				
<213> Conus litoglyphus				
<220>				
<221> CDS				
<222> (21)..(254)				
<400> 127				
gaattcgccc ttaatggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg				53

Met Gln Thr Ala Tyr Trp Val Met Val Met Met  
1 5 10

atg gtg tgg att aca gcc cct ctg tct gaa ggt gat aaa ttg aac gac 101  
Met Val Trp Ile Thr Ala Pro Leu Ser Glu Gly Asp Lys Leu Asn Asp  
15 20 25

gta att cgg ggt ttg gtg cca gat aac tta gcc cca cag ctt gtt ttg 149  
Val Ile Arg Gly Leu Val Pro Asp Asn Leu Ala Pro Gln Leu Val Leu  
30 35 40

caa agt ctg gat tcc cgt cgt cat cct cac ggc att cgt cag gat gga 197  
Gln Ser Leu Asp Ser Arg Arg His Pro His Gly Ile Arg Gln Asp Gly  
45 50 55

gcc caa ata tgt atc tgg aag ata tgt cca cca tcc cca tgg aaa cga 245  
Ala Gln Ile Cys Ile Trp Lys Ile Cys Pro Pro Ser Pro Trp Lys Arg  
60 65 70 75

ctt gga tct taagaaaaga aacaattgac gtcagacaac cgccacaact 294  
Leu Gly Ser

tgagtacgac atcgtaata caacttcagc aaatatgaaa ttttcagcat cactgtgggt 354

gtgaagaaat cagttgcttt aaaggattgg atttgcctt gtttaagagt tgtactgatg 414

tcatctctgc actatgaaat aaagctgatg tgacaagcaa aaaaaaaaaa aaaaaagtac 474

tetgcgttgt tactcgagct taagggcgaa ttc 507

<210> 128  
<211> 78  
<212> PRT  
<213> Conus litoglyphus

<400> 128  
Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
1 5 10 15  
Ala Pro Leu Ser Glu Gly Asp Lys Leu Asn Asp Val Ile Arg Gly Leu  
20 25 30  
Val Pro Asp Asn Leu Ala Pro Gln Leu Val Leu Gln Ser Leu Asp Ser  
35 40 45  
Arg Arg His Pro His Gly Ile Arg Gln Asp Gly Ala Gln Ile Cys Ile  
50 55 60  
Trp Lys Ile Cys Pro Pro Ser Pro Trp Lys Arg Leu Gly Ser  
65 70 75

<210> 129  
<211> 28  
<212> PRT  
<213> Conus litoglyphus

<220>  
<221> PEPTIDE  
<222> (1)..(28)  
<223> Xaa at residues 2, 19, 20 and 22 may be Pro or hydroxy-Pro; Xaa a  
t residues 15 and 23 may be Trp (D or L) or bromo-Trp (D or L)

<400> 129

His Xaa His Gly Ile Arg Gln Asp Gly Ala Gln Ile Cys Ile Xaa Lys  
1 5 10 15

Ile Cys Xaa Xaa Ser Xaa Xaa Lys Arg Leu Gly Ser  
20 25

<210> 130  
<211> 507  
<212> DNA  
<213> Conus litteratus

<220>  
<221> CDS  
<222> (21)..(299)

<400> 130  
gaattcgccc ttatggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg 53  
Met Gln Thr Ala Tyr Trp Val Met Val Met Met  
1 5 10

atg gtg ggg att aca gcc cct ctg tct gaa ggt cgt aaa ttg aac gac 101  
Met Val Gly Ile Thr Ala Pro Leu Ser Glu Gly Arg Lys Leu Asn Asp  
15 20 25

gca att cgg ggt ttg gtg cca gat gac tta acc cca cag ctt ttg cga 149  
Ala Ile Arg Gly Leu Val Pro Asp Asp Leu Thr Pro Gln Leu Leu Arg  
30 35 40

agt ccg gtt tcg act cct tat cct gag ttt cat ctt gat gaa cct tat 197  
Ser Pro Val Ser Thr Pro Tyr Pro Glu Phe His Leu Asp Glu Pro Tyr  
45 50 55

ctg aag ata ccc gta tgt atc tgg aag ata tgt cca cca aac cta ttg 245  
Leu Lys Ile Pro Val Cys Ile Trp Lys Ile Cys Pro Pro Asn Leu Leu  
60 65 70 75

aga cga cgt gat ctt aag aaa aga aac aaa gta cgt cag aca acc gcc 293  
Arg Arg Arg Asp Leu Lys Lys Arg Asn Lys Val Arg Gln Thr Thr Ala  
80 85 90

aca act tgagtacgac atcggttcata caacttgagc aaatatttca gcatcactat 349  
Thr Thr

ggttgtgaag aaatcagttg ctttaaaaga ttggatcttt cttgttttaa gagttgtatt 409

gatgtcagct ctgcactctg aaataaagct gatgtgacaa acaaaaaaaaa aaaaaaaaaa 469

agtactctgc gttgttactc gagcttaagg gccaattc 507

<210> 131  
<211> 93  
<212> PRT  
<213> Conus litteratus

<400> 131  
Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Gly Ile Thr  
1 5 10 15

Ala Pro Leu Ser Glu Gly Arg Lys Leu Asn Asp Ala Ile Arg Gly Leu  
20 25 30

Val Pro Asp Asp Leu Thr Pro Gln Leu Leu Arg Ser Pro Val Ser Thr  
35 40 45



Pro Tyr Pro Glu Phe His Leu Asp Glu Pro Tyr Leu Lys Ile Pro Val  
50 55 60

Cys Ile Trp Lys Ile Cys Pro Pro Asn Leu Leu Arg Arg Arg Asp Leu  
65 70 75 80

Lys Lys Arg Asn Lys Val Arg Gln Thr Thr Ala Thr Thr  
85 90

<210> 132  
<211> 50  
<212> PRT  
<213> Conus litteratus

<220>  
<221> PEPTIDE  
<222> (1)..(50)  
<223> Xaa at residues 2, 6, 8, 15, 20, 28 and 29 may be Pro or hydroxy-Pro; Xaa at residues 7 and 16 may be Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr; Xaa at residues 9 and 14 may be Glu or Gla

<220>  
<221> PEPTIDE  
<222> (1)..(50)  
<223> Xaa at residue 24 may be Trp (D or L) or bromo-Trp (D or L)

<400> 132  
Ser Xaa Val Ser Thr Xaa Xaa Xaa Xaa Phe His Leu Asp Xaa Xaa Xaa  
1 5 10 15

Leu Lys Ile Xaa Val Cys Ile Xaa Lys Ile Cys Xaa Xaa Asn Leu Leu  
20 25 30

Arg Arg Arg Asp Leu Lys Lys Arg Asn Lys Val Arg Gln Thr Thr Ala  
35 40 45

Thr Thr  
50

<210> 133  
<211> 508  
<212> DNA  
<213> Conus litteratus

<220>  
<221> CDS  
<222> (21)..(275)

<400> 133  
gaattcgccc ttatggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg 53  
Met Gln Thr Ala Tyr Trp Val Met Val Met Met  
1 5 10

atg gtg ggg att aca gcc cct ctg tct gaa ggt cgt aaa ttg aac gac 101  
Met Val Gly Ile Thr Ala Pro Leu Ser Glu Gly Arg Lys Leu Asn Asp  
15 20 25

gca att cgg ggt ttg gtg cca aat gac tta acc cca cag ctt ttg caa 149  
Ala Ile Arg Gly Leu Val Pro Asn Asp Leu Thr Pro Gln Leu Leu Gln  
30 35 40

agt ctg gtt tcc cgt cgt cat cgt gtg ttt cat ctt gac aac act tat 197

Conus litteratus

Ser Leu Val Ser Arg Arg His Arg Val Phe His Leu Asp Asn Thr Tyr  
 45 50 55  
 ctc aag ata ccc ata tgt gcc tgg aag gta tgt cca cca acc cca tgg 245  
 Leu Lys Ile Pro Ile Cys Ala Trp Lys Val Cys Pro Pro Thr Pro Trp  
 60 65 70 75  
 aga cga cgt gat ctt aag aaa aga aac aaa tgacgtcaga caaccgccac 295  
 Arg Arg Arg Asp Leu Lys Lys Arg Asn Lys  
 80 85  
 aacttgagta cgacattgtt aatgcgactt gagcaaattt ttcagcatca ctatggttgt 355  
 aaagaaatca gctgctttaa acgattggat ctttccttat ttaagagttg tattgatgtc 415  
 agctctgcac tctgaaataa agctgatgtg acaaacaaaa aaaaaaaaaa aaaaaagtac 475  
 tctgcgttgt tactcgagct taagggcgaa ttc 508  
 <210> 134  
 <211> 85  
 <212> PRT  
 <213> Conus litteratus  
 <400> 134  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Gly Ile Thr  
 1 5 10 15  
 Ala Pro Leu Ser Glu Gly Arg Lys Leu Asn Asp Ala Ile Arg Gly Leu  
 20 25 30  
 Val Pro Asn Asp Leu Thr Pro Gln Leu Leu Gln Ser Leu Val Ser Arg  
 35 40 45  
 Arg His Arg Val Phe His Leu Asp Asn Thr Tyr Leu Lys Ile Pro Ile  
 50 55 60  
 Cys Ala Trp Lys Val Cys Pro Pro Thr Pro Trp Arg Arg Arg Asp Leu  
 65 70 75 80  
 Lys Lys Arg Asn Lys  
 85  
 <210> 135  
 <211> 36  
 <212> PRT  
 <213> Conus litteratus  
 <220>  
 <221> PEPTIDE  
 <222> (1)..(36)  
 <223> Xaa at residue 10 may be Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr,  
 O-sulpho-Tyr or O-phospho-Tyr; Xaa at residues 14, 22, 23 and  
 25 may be Pro or hydroxy-Pro; Xaa at residues 18 and 26 may be Trp  
 (D or L) or bromo-Trp (D or L)  
 <400> 135  
 His Arg Val Phe His Leu Asp Asn Thr Xaa Leu Lys Ile Xaa Ile Cys  
 1 5 10 15  
 Ala Xaa Lys Val Cys Xaa Xaa Thr Xaa Xaa Arg Arg Arg Asp Leu Lys  
 20 25 30  
 Lys Arg Asn Lys  
 35

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<220>
<221> CDS
<222> (21)..(236)
<220>
<221> misc_feature
<222> (1)..(498)
<223> n may be any base
```

atg gtg tgg att aaa ggc cct gtg tct gaa ggt ggt aaa ttg aac gac 101  
Met Val Trp Ile Lys Gly Pro Val Ser Glu Gly Gly Lys Leu Asn Asp  
15 20 25

gta att cgg ggt ttg gtg cca gac gac tta acc cca cag ctt atc ttg 149  
Val Ile Arg Gly Leu Val Pro Asp Asp Leu Thr Pro Gln Leu Ile Leu  
30 35 40

caa agt ctg atg tcc cgt cgt cgt tct gac agc gat gtt cgg gag gtg 197  
Gln Ser Leu Met Ser Arg Arg Arg Ser Asp Ser Asp Val Arg Glu Val  
45 50 55

tac ata tta tgc atc tgg aag ata tgt cca cca ttg cca tgaagacgac 246  
 Tyr Ile Leu Cys Ile Trp Lys Ile Cys Pro Pro Leu Pro  
 60 65 70

atgatcttaa gqaaaaggat aaacgacgtc agacaaccgc tacaactgta gtacgacatc 306

gttaatacga cttcagcaaa tatttgaaca tcaactgtggt tgtgaagaaa tcagttgctt 366

taaacgattg gatttttcct taagagttgc actgatatca gctctgcaat atgaaataaa 426

gctgatgtga ctaccaaaaa aaaaaaaaaa aaaaagtact ntgcgttggt actcgagctt 486

aagggcgaat tc 498

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<210> 137
<211> 72
<212> PRT
<213> Conus loroisii
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<400> 137
Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Lys
1          5          10          15

```

Gly Pro Val Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
20 25 30

Val Pro Asp Asp Leu Thr Pro Gln Leu Ile Leu Gln Ser Leu Met Ser  
35 40 45

Arg Arg Arg Ser Asp Ser Asp Val Arg Glu Val Tyr Ile Leu Cys Ile  
50 55 60

Trp Lys Ile Cys Pro Pro Leu Pro

70

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<400> 138
Arg Ser Asp Ser Asp Val Arg Xaa Val Xaa Ile Leu Cys Ile Xaa Lys
1          5          10          15
Ile Cys Xaa Xaa Leu Xaa
          20
```

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<220>
<221> CDS
<222> (21) .. (242)
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atg	gtg	tgg	att	aca	gcc	cct	ctg	tct	gaa	ggg	ggg	aaa	ttg	aac	gac	101
Met	Val	Trp	Ile	Thr	Ala	Pro	Leu	Ser	Glu	Gly	Gly	Lys	Leu	Asn	Asp	
			15					20					25			

gta att cgg ggt ttg gtg cca cac tcc tta acc cca cag cat atc ttg 149  
Val Ile Arg Gly Leu Val Pro His Ser Leu Thr Pro Gln His Ile Leu  
30 35 40

caa agt ctg act tcc cgt aat ggt tct ggc agc agc aat cag aaa gaa 197  
Gln Ser Leu Thr Ser Arg Asn Gly Ser Gly Ser Ser Asn Gln Lys Glu  
45 50 55

gca caa cta tgc atc tgg aag gta tgt cca cca tcc cca tgg aga 242  
Ala Gln Leu Cys Ile Trp Lys Val Cys Pro Pro Ser Pro Trp Arg  
60 65 70

tgaccacaag gaaaaagatg aacggcgtca gacaaccgcc acaactgtag tgggacatcg 302

ttgatacgac ttcaacaaat attttaacat cactgtgggt gtaaagaaat caqttgcttt 362

aaaagattgg atttttcctt gtttaagagt tgtactgata tcagctctgc actatqaaat 422

aaagctgatg tgacaaacaa aaaaaaaaaa aaaaaaagtac tctgcgttgt tactcgagct 482

taagggcgaa ttc 495

<210>	140
<211>	74
<212>	PRT

<213> Conus magus

<400> 140

Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
1 5 10 15

Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
20 25 30

Val Pro His Ser Leu Thr Pro Gln His Ile Leu Gln Ser Leu Thr Ser  
35 40 45

Arg Asn Gly Ser Gly Ser Ser Asn Gln Lys Glu Ala Gln Leu Cys Ile  
50 55 60

Trp Lys Val Cys Pro Pro Ser Pro Trp Arg  
65 70

<210> 141

<211> 25

<212> PRT

<213> Conus magus

<220>

<221> PEPTIDE

<222> (1)..(25)

<223> Xaa at residue 10 may be Glu or Gla; Xaa at residues 16 and 24 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residues 20, 21 and 23 may be Pro or hydroxy-Pro

<400> 141

Asn Gly Ser Gly Ser Ser Asn Gln Lys Xaa Ala Gln Leu Cys Ile Xaa  
1 5 10 15

Lys Val Cys Xaa Xaa Ser Xaa Xaa Arg  
20 25

<210> 142

<211> 587

<212> DNA

<213> Conus miles

<220>

<221> CDS

<222> (21)..(347)

<220>

<221> misc\_feature

<222> (1)..(587)

<223> n may be any nucleotide

<400> 142

gaattcgccc ttatggatcc atg cag acg gcc tac tgg gtg atg atg atg gtg 53  
Met Gln Thr Ala Tyr Trp Val Met Met Met Val  
1 5 10

gtg atg atg gtg ggg gtt act gtc gct ggc tcc ctg cct gtg ttt gat 101  
Val Met Met Val Gly Val Thr Val Ala Gly Ser Leu Pro Val Phe Asp  
15 20 25

gac gac aac gac tct gac ccc gct gtc aag cgc gct atc acg tgg tcc 149  
Asp Asp Asn Asp Ser Asp Pro Ala Val Lys Arg Ala Ile Thr Trp Ser  
30 35 40

cgc atc ctg ggc gtg tct cca gcc ttc ctg gca cag cag cga gcg ctg 197  
 Arg Ile Leu Gly Val Ser Pro Ala Phe Leu Ala Gln Gln Arg Ala Leu  
 45 50 55

gtt ccc ttc gcc aac cga ttc atc agt gag cag aaa cgt ttc cga ccc 245  
 Val Pro Phe Ala Asn Arg Phe Ile Ser Glu Gln Lys Arg Phe Arg Pro  
 60 65 70 75

gcc atg cag agc cga tca gga gga atg tcg ctg tgc cta tgg aaa gtg 293  
 Ala Met Gln Ser Arg Ser Gly Gly Met Ser Leu Cys Leu Trp Lys Val  
 80 85 90

tgt cct gca gcc ccc tgg ctg gtc gcc aaa cgt aaa cag gaa acc agc 341  
 Cys Pro Ala Ala Pro Trp Leu Val Ala Lys Arg Lys Gln Glu Thr Ser  
 95 100 105

gac tac tgacgtcata cctctaaaga ccactcatg acgtcaacgc tgaactgacg 397  
 Asp Tyr

tcaccgacag ctccaacgtc acagcaggag cgagagagag gctggagcat ttctctttct 457

tttggttttt cgagttgaag tgtgatcagc tgggctggtg aaaaaattgt tgagtaaagt 517

tgaatgaaaa tcaaaaaaaaa aaaaaaaaaa agtactctgc gttggtactc gaggcttaaa 577

ggcgnaattc 587

<210> 143

<211> 109

<212> PRT

<213> Conus miles

<400> 143

Met Gln Thr Ala Tyr Trp Val Met Met Met Val Val Met Met Val Gly  
 1 5 10 15

Val Thr Val Ala Gly Ser Leu Pro Val Phe Asp Asp Asp Asn Asp Ser  
 20 25 30

Asp Pro Ala Val Lys Arg Ala Ile Thr Trp Ser Arg Ile Leu Gly Val  
 35 40 45

Ser Pro Ala Phe Leu Ala Gln Gln Arg Ala Leu Val Pro Phe Ala Asn  
 50 55 60

Arg Phe Ile Ser Glu Gln Lys Arg Phe Arg Pro Ala Met Gln Ser Arg  
 65 70 75 80

Ser Gly Gly Met Ser Leu Cys Leu Trp Lys Val Cys Pro Ala Ala Pro  
 85 90 95

Trp Leu Val Ala Lys Arg Lys Gln Glu Thr Ser Asp Tyr  
 100 105

<210> 144

<211> 37

<212> PRT

<213> Conus miles

<220>

<221> PEPTIDE

<222> (1)..(37)

<223> Xaa at residues 3, 21 and 24 may be Pro or hydroxy-Pro; Xaa at re

sidues 17 and 25 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residue 33 may be Glu or Gla;

<220>  
 <221> PEPTIDE  
 <222> (1)..(37)  
 <223> Xaa at residue 37 may be Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr

<400> 144  
 Phe Arg Xaa Ala Met Gln Ser Arg Ser Gly Gly Met Ser Leu Cys Leu  
 1 5 10 15  
 Xaa Lys Val Cys Xaa Ala Ala Xaa Xaa Leu Val Ala Lys Arg Lys Gln  
 20 25 30  
 Xaa Thr Ser Asp Xaa  
 35

<210> 145  
 <211> 499  
 <212> DNA  
 <213> Conus miles

<220>  
 <221> CDS  
 <222> (21)..(401)

<400> 145  
 gaattcgccc ttatggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg 53  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met  
 1 5 10  
 atg gtg gtg ggt tca ccg tgg gga gtc acg tcc atc ggt ctc aca gtc 101  
 Met Val Val Gly Ser Pro Ser Gly Val Thr Ser Ile Gly Leu Thr Val  
 15 20 25  
 cta cgt cgc gca acc atg gtg atg act cca ttc atg aca aga cga ttc 149  
 Leu Arg Arg Ala Thr Met Val Met Thr Pro Phe Met Thr Arg Arg Phe  
 30 35 40  
 atc aac atc tgt ttg ccc gtc ttc ctc tgg aga aca acg acg acc atc 197  
 Ile Asn Ile Cys Leu Pro Val Phe Leu Trp Arg Thr Thr Thr Thr Ile  
 45 50 55  
 gtt ctg tgg atc ttc ctg cag tgt atg cgc cgg gcc agg cac gtg tgc 245  
 Val Leu Trp Ile Phe Leu Gln Cys Met Arg Arg Ala Arg His Val Cys  
 60 65 70 75  
 gtt cta ctt ttg ttc ttg acc tca ttg cag ata ggg gtt ggt gca gac 293  
 Val Leu Leu Leu Phe Leu Thr Ser Leu Gln Ile Gly Val Gly Ala Asp  
 80 85 90  
 gac atg aaa cta cag cgc caa aga cgt caa ggt ttc tgt tgc gtc gtt 341  
 Asp Met Lys Leu Gln Arg Gln Arg Arg Gln Gly Phe Cys Cys Val Val  
 95 100 105  
 atc ccg att ctt tgg ttc tgt tgt ggg ggt tac cgc aca aat ggc act 389  
 Ile Pro Ile Leu Trp Phe Cys Cys Gly Gly Tyr Arg Thr Asn Gly Thr  
 110 115 120  
 gca ctg gcc gat tgaaagaact gcaataaacg gaatggcaag aaggaataaa 441  
 Ala Leu Ala Asp  
 125

aaaaaaaaaa aaaaaaaaaa agtactctgc gttgttactc gagcttaagg gcgaattc 499

<210> 146  
 <211> 127  
 <212> PRT  
 <213> Conus miles

<400> 146  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Val Gly Ser  
 1 5 10 15  
 Pro Ser Gly Val Thr Ser Ile Gly Leu Thr Val Leu Arg Arg Ala Thr  
 20 25 30  
 Met Val Met Thr Pro Phe Met Thr Arg Arg Phe Ile Asn Ile Cys Leu  
 35 40 45  
 Pro Val Phe Leu Trp Arg Thr Thr Thr Thr Ile Val Leu Trp Ile Phe  
 50 55 60  
 Leu Gln Cys Met Arg Arg Ala Arg His Val Cys Val Leu Leu Leu Phe  
 65 70 75 80  
 Leu Thr Ser Leu Gln Ile Gly Val Gly Ala Asp Asp Met Lys Leu Gln  
 85 90 95  
 Arg Gln Arg Arg Gln Gly Phe Cys Cys Val Val Ile Pro Ile Leu Trp  
 100 105 110  
 Phe Cys Cys Gly Gly Tyr Arg Thr Asn Gly Thr Ala Leu Ala Asp  
 115 120 125

<210> 147  
 <211> 27  
 <212> PRT  
 <213> Conus miles

<220>  
 <221> PEPTIDE  
 <222> (1)..(27)  
 <223> Xaa at residue 1 is Gln or pyro-Glu; Xaa at residue 9 may be Pro  
 or hydroxy-Pro; Xaa at residue 12 may be Trp (D or L) or bromo-Trp  
 p(D or L); Xaa at residue 18 may be Tyr, 125I-Tyr, mono-iodo-Tyr,  
 di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr

<400> 147  
 Xaa Gly Phe Cys Cys Val Val Ile Xaa Ile Leu Xaa Phe Cys Cys Gly  
 1 5 10 15  
 Gly Xaa Arg Thr Asn Gly Thr Ala Leu Ala Asp  
 20 25

<210> 148  
 <211> 450  
 <212> DNA  
 <213> Conus muriculatus

<220>  
 <221> CDS  
 <222> (1)..(237)

<400> 148  
 atg cag acg gcc tac tgg gtg atg gtg atg atg atg tgg att aca



Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
1 5 10 15

gcc cct ttg tct gaa ggt ggt aaa ctg aac gat gta att cgg ggt ttc 96  
Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Phe  
20 25 30

gcg cta gat gac tta gcc caa agc cgt att atg caa agt ctg gtt ttc 144  
Ala Leu Asp Asp Leu Ala Gln Ser Arg Ile Met Gln Ser Leu Val Phe  
35 40 45

agt cat cag cct ctt cca acg gca tcc ata tgt atc tgg aag ata tgt 192  
Ser His Gln Pro Leu Pro Thr Ala Ser Ile Cys Ile Trp Lys Ile Cys  
50 55 60

cca cca gac cca tgg aga cga cat gat ctt cag aaa agt aac aaa 237  
Pro Pro Asp Pro Trp Arg Arg His Asp Leu Gln Lys Ser Asn Lys  
65 70 75

tgacgtcaga caaccgccac aacttgaata caacatcatt aatacgactt cagcaaatat 297

tttaacatca ctgtgattgt tcggaagtca gttgctttaa aggattggat ttgtccctgt 357

tgtattgatg tcaactctgc actatgaaat aaagctgatg tgacaaacaa gaaaaaaaaa 417

aaaaaaaaaa agtactctgc gttgttactc gag 450

<210> 149  
<211> 79  
<212> PRT  
<213> Conus muriculatus

<400> 149  
Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
1 5 10 15

Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Phe  
20 25 30

Ala Leu Asp Asp Leu Ala Gln Ser Arg Ile Met Gln Ser Leu Val Phe  
35 40 45

Ser His Gln Pro Leu Pro Thr Ala Ser Ile Cys Ile Trp Lys Ile Cys  
50 55 60

Pro Pro Asp Pro Trp Arg Arg His Asp Leu Gln Lys Ser Asn Lys  
65 70 75

<210> 150  
<211> 38  
<212> PRT  
<213> Conus muriculatus  
<220>  
<221> PEPTIDE  
<222> (1)..(38)  
<223> Xaa at residues 11, 13, 24, 25 and 27 may be Pro or hydroxy-Pro;  
Xaa at residue 20 and 28 may be Trp or bromo-Trp

<400> 150  
Ile Met Gln Ser Leu Val Phe Ser His Gln Xaa Leu Xaa Thr Ala Ser  
1 5 10 15

Ile Cys Ile Xaa Lys Ile Cys Xaa Xaa Asp Xaa Xaa Arg Arg His Asp  
20 25 30

Leu Gln Lys Ser Asn Lys  
35

<210> 151  
<211> 437  
<212> DNA  
<213> Conus musicus

<220>  
<221> CDS  
<222> (1)..(240)

<400> 151  
atg cag acg gcc tac tgg gtg atg atg atg acg atg atg gtg tgg atg 48  
Met Gln Thr Ala Tyr Trp Val Met Met Met Thr Met Met Val Trp Met  
1 5 10 15  
  
aca gcc cct ctg tct gaa ggt cgt cca ctg agc gac gaa gtt cgg ggt 96  
Thr Ala Pro Leu Ser Glu Gly Arg Pro Leu Ser Asp Glu Val Arg Gly  
20 25 30  
  
atg gtg cca ggc gac ttg gtc cta cag tat ctg ttc cca agt ctg gct 144  
Met Val Pro Gly Asp Leu Val Leu Gln Tyr Leu Phe Pro Ser Leu Ala  
35 40 45  
  
ttc agt cct ccg gac ata tgt acg tgg aag gta tgt cca cca ccc cca 192  
Phe Ser Pro Pro Asp Ile Cys Thr Trp Lys Val Cys Pro Pro Pro Pro  
50 55 60  
  
tgg aga cga cca aaa aaa ata aca gac gtc aga cag ccg cca caa ctg 240  
Trp Arg Arg Pro Lys Lys Ile Thr Asp Val Arg Gln Pro Pro Gln Leu  
65 70 75 80  
  
tagtacgaca tcgttgatac ggcttcagca aatattttca acatcaactgc ggttgtgaag 300  
aaatcagttg ctttaaaatg ttggattttt ccttgtttaa aagagctgta ctgatgtcag 360  
ccctgcatta cgaaataaag ctgatgtgac aaacaaaaaa aaaaaaaaaa aaaaagtact 420  
ctgcgttggtt actcgag 437

<210> 152  
<211> 80  
<212> PRT  
<213> Conus musicus

<400> 152  
Met Gln Thr Ala Tyr Trp Val Met Met Met Thr Met Met Val Trp Met  
1 5 10 15  
  
Thr Ala Pro Leu Ser Glu Gly Arg Pro Leu Ser Asp Glu Val Arg Gly  
20 25 30  
  
Met Val Pro Gly Asp Leu Val Leu Gln Tyr Leu Phe Pro Ser Leu Ala  
35 40 45  
  
Phe Ser Pro Pro Asp Ile Cys Thr Trp Lys Val Cys Pro Pro Pro Pro  
50 55 60  
  
Trp Arg Arg Pro Lys Lys Ile Thr Asp Val Arg Gln Pro Pro Gln Leu  
65 70 75 80

<210> 153

<211> 49  
 <212> PRT  
 <213> Conus musicus

<220>  
 <221> PEPTIDE  
 <222> (1)..(49)  
 <223> Xaa at residues 4, 14, 20, 21, 30, 31, 32, 33, 37, 46 and 47 may be Pro or hydroxy-Pro; Xaa at residue 11 may be Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr; Xaa at residues 26 and 34 may be Trp (D or L) or bromo-Trp (D or L)

<400> 153  
 Gly Met Val Xaa Gly Asp Leu Val Leu Gln Xaa Leu Phe Xaa Ser Leu  
 1 5 10 15

Ala Phe Ser Xaa Xaa Asp Ile Cys Thr Xaa Lys Val Cys Xaa Xaa Xaa  
 20 25 30

Xaa Xaa Arg Arg Xaa Lys Lys Ile Thr Asp Val Arg Gln Xaa Xaa Gln  
 35 40 45

Leu

<210> 154  
 <211> 436  
 <212> DNA  
 <213> Conus musicus

<220>  
 <221> CDS  
 <222> (1)..(216)

<400> 154  
 atg cag acg gcc tac tgg gtg atg atg atg atg atg atg gtg tgg atg 48  
 Met Gln Thr Ala Tyr Trp Val Met Met Met Met Met Met Val Trp Met  
 1 5 10 15

aca gcc cct ctg tct gaa ggt cgt aaa ctg atc gac aaa gtt cgg ggt 96  
 Thr Ala Pro Leu Ser Glu Gly Arg Lys Leu Ile Asp Lys Val Arg Gly  
 20 25 30

atg ggg cca ggc gac tta tcc cta cag aaa atg ttc cca agt ctg gct 144  
 Met Gly Pro Gly Asp Leu Ser Leu Gln Lys Met Phe Pro Ser Leu Ala  
 35 40 45

tta ggt cct ggg gga gac gta ata tgt agg tgg aag gta tgt cca cca 192  
 Leu Gly Pro Gly Gly Asp Val Ile Cys Arg Trp Lys Val Cys Pro Pro  
 50 55 60

acc cca tgg aaa cga cta ata aaa taactgacgt cagacagccg ccacaactgt 246  
 Thr Pro Trp Lys Arg Leu Ile Lys  
 65 70

agtacgacat cggtgatacg acttcagcaa atatttcaac atcactgcgg ttgtgaagaa 306

atcagttgct ttaaaagatt ggatttttcc ttgttttaaag agttgtactg atatcagctc 366

tgcattacga aataaagctg atgtgacaaa caaaaaaaaaa aaaaaaaagt actctgcgtt 426

gttactcgag 436

<210> 155  
 <211> 72

<212> PRT  
 <213> Conus musicus

<400> 155  
 Met Gln Thr Ala Tyr Trp Val Met Met Met Met Met Met Val Trp Met  
 1 5 10 15  
 Thr Ala Pro Leu Ser Glu Gly Arg Lys Leu Ile Asp Lys Val Arg Gly  
 20 25 30  
 Met Gly Pro Gly Asp Leu Ser Leu Gln Lys Met Phe Pro Ser Leu Ala  
 35 40 45  
 Leu Gly Pro Gly Gly Asp Val Ile Cys Arg Trp Lys Val Cys Pro Pro  
 50 55 60  
 Thr Pro Trp Lys Arg Leu Ile Lys  
 65 70

<210> 156  
 <211> 41  
 <212> PRT  
 <213> Conus musicus

<220>  
 <221> PEPTIDE  
 <222> (1)..(41)  
 <223> Xaa at residues 4, 14, 20, 32, 33 and 35 may be Pro or hydroxy-Pro;  
 Xaa at residues 28 and 36 may be Trp (D or L) or bromo-Trp (D or L)

<400> 156  
 Gly Met Gly Xaa Gly Asp Leu Ser Leu Gln Lys Met Phe Xaa Ser Leu  
 1 5 10 15  
 Ala Leu Gly Xaa Gly Gly Asp Val Ile Cys Arg Xaa Lys Val Cys Xaa  
 20 25 30  
 Xaa Thr Xaa Xaa Lys Arg Leu Ile Lys  
 35 40

<210> 157  
 <211> 449  
 <212> DNA  
 <213> Conus musicus

<220>  
 <221> CDS  
 <222> (1)..(243)

<400> 157  
 atg cag acg gcc tac tgg gtg atg atg atg atg acg atg atg gtg tgg 48  
 Met Gln Thr Ala Tyr Trp Val Met Met Met Met Thr Met Met Val Trp  
 1 5 10 15  
 atg aca gcc cct ctg tct gaa ggt cgt cca ctg agc gac aaa gtt cgg 96  
 Met Thr Ala Pro Leu Ser Glu Gly Arg Pro Leu Ser Asp Lys Val Arg  
 20 25 30  
 ggt atg gtg cca ggc gac tta gcc ctg cag tat ctg ttc cca agt ctg 144  
 Gly Met Val Pro Gly Asp Leu Ala Leu Gln Tyr Leu Phe Pro Ser Leu  
 35 40 45  
 gct ttc aat ccc ccg gac ata tgt acg tgg aag gta tgt cca cca ccc 192

Ala Phe Asn Pro Pro Asp Ile Cys Thr Trp Lys Val Cys Pro Pro Pro  
50 55 60

cca tgg aga cga cca aaa aaa ata act gac gtc gga cag ccg cca caa 240  
Pro Trp Arg Arg Pro Lys Lys Ile Thr Asp Val Gly Gln Pro Pro Gln  
65 70 75 80

ctg tagtacgaca tcgttgatac gacttcagca aatattttca acatcactgc 293  
Leu

ggttgtgaag aaatcagttg ttttaaaagg ttggattttt ccttggtttaa aagagctgta 353

ctgatgtcag ctctgcatta cgaaataaag ctgatgtgac aaacgaaaaa aaaaaaaaaa 413

aaaaaaaaaa aaaagtactc tgcgttggtta ctcgag 449

<210> 158  
<211> 81  
<212> PRT  
<213> Conus musicus

<400> 158  
Met Gln Thr Ala Tyr Trp Val Met Met Met Met Thr Met Met Val Trp  
1 5 10 15

Met Thr Ala Pro Leu Ser Glu Gly Arg Pro Leu Ser Asp Lys Val Arg  
20 25 30

Gly Met Val Pro Gly Asp Leu Ala Leu Gln Tyr Leu Phe Pro Ser Leu  
35 40 45

Ala Phe Asn Pro Pro Asp Ile Cys Thr Trp Lys Val Cys Pro Pro Pro  
50 55 60

Pro Trp Arg Arg Pro Lys Lys Ile Thr Asp Val Gly Gln Pro Pro Gln  
65 70 75 80

Leu

<210> 159  
<211> 49  
<212> PRT  
<213> Conus musicus

<220>  
<221> PEPTIDE  
<222> (1)..(49)  
<223> Xaa at residues 4, 14, 20, 21, 30, 31, 32, 33, 37, 46 and 47 may  
be Pro or hydroxy-Pro; Xaa at residue 11 may be Tyr, 125I-Tyr, mo  
no-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr; Xaa at r  
esidues 26 and 34 may be Trp (D or L) or bromo-Trp (D or L)

<400> 159  
Gly Met Val Xaa Gly Asp Leu Ala Leu Gln Xaa Leu Phe Xaa Ser Leu  
1 5 10 15

Ala Phe Asn Xaa Xaa Asp Ile Cys Thr Xaa Lys Val Cys Xaa Xaa Xaa  
20 25 30

Xaa Xaa Arg Arg Xaa Lys Lys Ile Thr Asp Val Gly Gln Xaa Xaa Gln  
35 40 45

Leu

<210> 160  
 <211> 436  
 <212> DNA  
 <213> Conus musicus

<220>  
 <221> CDS  
 <222> (1)..(240)

<400> 160  
 atg cag acg gcc tac tgg gtg atg atg atg acg atg atg gtg tgg atg 48  
 Met Gln Thr Ala Tyr Trp Val Met Met Met Thr Met Met Val Trp Met  
 1 5 10 15  
 aca gcc cct ctg tct gaa ggt cgt cca ctg agc gac aaa gtt cgg ggt 96  
 Thr Ala Pro Leu Ser Glu Gly Arg Pro Leu Ser Asp Lys Val Arg Gly  
 20 25 30  
 atg gtg cca ggc gac tta gtc ctg cag tat ctg ttc cca agt ctg gct 144  
 Met Val Pro Gly Asp Leu Val Leu Gln Tyr Leu Phe Pro Ser Leu Ala  
 35 40 45  
 ttc aat cct ccg gac ata tgt acg tgg aag gta tgt cca cca ccc cca 192  
 Phe Asn Pro Pro Asp Ile Cys Thr Trp Lys Val Cys Pro Pro Pro Pro  
 50 55 60  
 tgg aga cga cca aaa aaa ata act gac gtc aga cag ccg cca caa ctg 240  
 Trp Arg Arg Pro Lys Lys Ile Thr Asp Val Arg Gln Pro Pro Gln Leu  
 65 70 75 80  
 tagtacgaca tcgttgatac gacttcagca aatattttca acatcactgc ggttgtgaag 300  
 aaatcagttg ttttaaaagg ttggattttt ccttgtttaa aagagctgta ctgatgtcag 360  
 ctctgcatta cgaaataaag ctgatgtgac aagcaaaaaa aaaaaaaaaa aaaagtactc 420  
 tgcgttggtta ctcgag 436

<210> 161  
 <211> 80  
 <212> PRT  
 <213> Conus musicus

<400> 161  
 Met Gln Thr Ala Tyr Trp Val Met Met Met Thr Met Met Val Trp Met  
 1 5 10 15  
 Thr Ala Pro Leu Ser Glu Gly Arg Pro Leu Ser Asp Lys Val Arg Gly  
 20 25 30  
 Met Val Pro Gly Asp Leu Val Leu Gln Tyr Leu Phe Pro Ser Leu Ala  
 35 40 45  
 Phe Asn Pro Pro Asp Ile Cys Thr Trp Lys Val Cys Pro Pro Pro Pro  
 50 55 60  
 Trp Arg Arg Pro Lys Lys Ile Thr Asp Val Arg Gln Pro Pro Gln Leu  
 65 70 75 80

<210> 162  
 <211> 49  
 <212> PRT  
 <213> Conus musicus

<220>  
 <221> PEPTIDE  
 <222> (1)..(49)  
 <223> Xaa at residues 4, 14, 20, 21, 30, 31, 32, 33, 37, 46 and 47 may be Pro or hydroxy-Pro; Xaa at residue 11 may be Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr; Xaa at residues 26 and 34 may be Trp (D or L) or bromo-Trp (D or L)

<400> 162  
 Gly Met Val Xaa Gly Asp Leu Val Leu Gln Xaa Leu Phe Xaa Ser Leu  
 1 5 10 15  
 Ala Phe Asn Xaa Xaa Asp Ile Cys Thr Xaa Lys Val Cys Xaa Xaa Xaa  
 20 25 30  
 Xaa Xaa Arg Arg Xaa Lys Lys Ile Thr Asp Val Arg Gln Xaa Xaa Gln  
 35 40 45

Leu

<210> 163  
 <211> 462  
 <212> DNA  
 <213> Conus mustelinus

<220>  
 <221> CDS  
 <222> (1)..(225)

<400> 163  
 atg cag acg gcc tac tgg gtg atg gtg atg atg atg gcg tgg tat aca 48  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Ala Trp Tyr Thr  
 1 5 10 15  
 acc cct gtg tct gaa tgt ggg aaa ttg aac aac gta att cgg ggt ttt 96  
 Thr Pro Val Ser Glu Cys Gly Lys Leu Asn Asn Val Ile Arg Gly Phe  
 20 25 30  
 gtg cca aag gac tgg acc cca atg ctt ccc tgg cgt cgt cta gtt tcc 144  
 Val Pro Lys Asp Trp Thr Pro Met Leu Pro Trp Arg Arg Leu Val Ser  
 35 40 45  
 cat acc agc agc aag tat cca ggt gtg act ttt tgt cca tgg aag gtg 192  
 His Thr Ser Ser Lys Tyr Pro Gly Val Thr Phe Cys Pro Trp Lys Val  
 50 55 60  
 tgt ccg cca gcg cca tgg aga ata ctt ggg gtc taacgcacaaa aaatacatga 245  
 Cys Pro Pro Ala Pro Trp Arg Ile Leu Gly Val  
 65 70 75  
 cgtcagacaa ccgccaccgc tttagtagca catcggtcat acgtctccag caagtatttt 305  
 aacatcactg tgggtgtgaa gaagtcagta gctttaaaag attggatttt ttctttgttt 365  
 aagagttgta ctgacatgag ttctgcacta tgaaataaag ttgatgtgac gaacgaaaaa 425  
 aaaaaaaaaa aaaaagtact ctgcgttggtt actcgag 462

<210> 164  
 <211> 75  
 <212> PRT  
 <213> Conus mustelinus

<400> 164

[illegible]



cct gcc gtg aag agc cga tca cga cga gcg ccg ccg tgc gtg tgg aag 293  
 Pro Ala Val Lys Ser Arg Ser Arg Arg Ala Pro Pro Cys Val Trp Lys  
                   80                                  85                                  90

gtg tgt ccc gct ccc ccc tgg ctg gtc acc aaa cgt aaa cag gaa acc 341  
 Val Cys Pro Ala Pro Pro Trp Leu Val Thr Lys Arg Lys Gln Glu Thr  
                   95                                  100                                  105

agc gac tac tgacgtcata cctcaataga ccgactcatg acttcaacgc 390  
 Ser Asp Tyr  
                   110

tgaattgacg tcaccgagag ctccaacgtc acagcaggag cgagagagag agagagagag 450  
 agagaaagag agagagaaag gctggagtat ttctctttct tttggttttt cgtgttgaag 510  
 tgtgatcagc tgggctggtt caaaattggt gaataaagtt gaatgaaaat caaaaaaaaaa 570  
 aaaaaaaaaa aagtactctg cgttgttact cgagcttaag ggcgaattc 619

<210> 167  
 <211> 110  
 <212> PRT  
 <213> Conus nobilis

<400> 167  
 Met Gln Thr Ala Tyr Trp Val Met Met Met Val Val Val Met Met Val  
 1                  5                                  10                                  15  
 Gly Val Thr Val Ala Gly Ser Leu Ser Val Phe Asp Asp Asp Asn Asp  
                   20                                  25                                  30

Ser Asp Pro Ala Val Lys Arg Ala Ile Thr Trp Ser Arg Phe Leu Gly  
                   35                                  40                                  45

Ala Ser Pro Ala Phe Leu Ala Gln Gln Arg Ala Leu Ala Pro Phe Ala  
                   50                                  55                                  60

Asn Arg Pro Ile Asn Glu Gln Lys Arg Phe Arg Pro Ala Val Lys Ser  
 65                                  70                                  75                                  80

Arg Ser Arg Arg Ala Pro Pro Cys Val Trp Lys Val Cys Pro Ala Pro  
                   85                                  90                                  95

Pro Trp Leu Val Thr Lys Arg Lys Gln Glu Thr Ser Asp Tyr  
                   100                                  105                                  110

<210> 168  
 <211> 37  
 <212> PRT  
 <213> Conus nobilis

<220>  
 <221> PEPTIDE  
 <222> (1)..(37)  
 <223> Xaa at residues 3, 13, 14, 21, 23 and 24 may be Pro or hydroxy-Pr  
       o; Xaa at residues 17 and 25 may be Trp (D or L) or bromo-Trp (D  
       or L); Xaa at residue 33 may be Glu or Gla;

<220>  
 <221> PEPTIDE  
 <222> (1)..(37)  
 <223> Xaa at residue 37 may be Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Ty  
       r, O-sulpho-Tyr or O-phospho-Tyr

Val Pro His Phe Leu Thr Pro Gln His Ile Leu Gln Ser Leu Thr Ser  
35 40 45

Arg Asn Gly Ser Gly Ser Ser Asn Gln Lys Glu Ala Gln Leu Cys Ile  
 50 55 60

Trp Lys Val Cys Pro Pro Thr Pro Trp Arg  
 65 70

<210> 171  
 <211> 25  
 <212> PRT  
 <213> Conus nobilis

<220>  
 <221> PEPTIDE  
 <222> (1)..(25)  
 <223> Xaa at residue 10 may be Glu or Glu; Xaa at residues 16 and 24 may be Trp or bromo-Trp; Xaa at residues 20, 21 and 23 may be Pro or hydroxy-Pro

<400> 171  
 Asn Gly Ser Gly Ser Ser Asn Gln Lys Xaa Ala Gln Leu Cys Ile Xaa  
 1 5 10 15

Lys Val Cys Xaa Xaa Thr Xaa Xaa Arg  
 20 25

<210> 172  
 <211> 604  
 <212> DNA  
 <213> Conus nobilis

<220>  
 <221> CDS  
 <222> (21)..(350)

<400> 172  
 gaattcgccc ttatggatcc atg cag acg gcc tac tgg gtg atg atg atg gtg 53  
 Met Gln Thr Ala Tyr Trp Val Met Met Met Val  
 1 5 10

gtg gtg atg atg gtg ggg gtt act gtc gct ggc tca ctg tct gtg ttt 101  
 Val Val Met Met Val Gly Val Thr Val Ala Gly Ser Leu Ser Val Phe  
 15 20 25

gat gac gac aat gac tct gac cca gct gtc aag cgc gcc atc acg tgg 149  
 Asp Asp Asp Asn Asp Ser Asp Pro Ala Val Lys Arg Ala Ile Thr Trp  
 30 35 40

tct cga ttc ctg ggc gcg tct cca gcc ttc ctg gca cag cag cga gcg 197  
 Ser Arg Phe Leu Gly Ala Ser Pro Ala Phe Leu Ala Gln Gln Arg Ala  
 45 50 55

ctg gct ccc ttc gcc aac cga ccc atc aat gag cag aaa cgt ttc cga 245  
 Leu Ala Pro Phe Ala Asn Arg Pro Ile Asn Glu Gln Lys Arg Phe Arg  
 60 65 70 75

cct gcc gtg aag agc cga tca cga cga gcg ccg ccg tgc gta tgg aag 293  
 Pro Ala Val Lys Ser Arg Ser Arg Arg Ala Pro Pro Cys Val Trp Lys  
 80 85 90

gtg tgt ccc gct ccc ccc tgg ctg gtc acc aaa cgt aaa cag gaa acc 341  
 Val Cys Pro Ala Pro Pro Trp Leu Val Thr Lys Arg Lys Gln Glu Thr  
 95 100 105

agc gac tac tgacgtcata cctcaataga ccgactcatg acttcaacgc 390  
 Ser Asp Tyr  
 110

tgaattgacc tcaccgagag ctccaacgtc acagcaggag cgagagagag agagagagag 450  
 agagagagag aaaggctgga gtatttctct ttctttcggg ttttcgtggt gaagtgtgat 510  
 cagctgggct ggttcaaaat tggtgaataa agttgaataa aaaaaaaaaa aaaaaaagta 570  
 ctctgcgttg ttactcgagc ttaagggcga attc 604

<210> 173  
 <211> 110  
 <212> PRT  
 <213> Conus nobilis

<400> 173  
 Met Gln Thr Ala Tyr Trp Val Met Met Met Val Val Val Met Met Val  
 1 5 10 15  
 Gly Val Thr Val Ala Gly Ser Leu Ser Val Phe Asp Asp Asp Asn Asp  
 20 25 30  
 Ser Asp Pro Ala Val Lys Arg Ala Ile Thr Trp Ser Arg Phe Leu Gly  
 35 40 45  
 Ala Ser Pro Ala Phe Leu Ala Gln Gln Arg Ala Leu Ala Pro Phe Ala  
 50 55 60  
 Asn Arg Pro Ile Asn Glu Gln Lys Arg Phe Arg Pro Ala Val Lys Ser  
 65 70 75 80  
 Arg Ser Arg Arg Ala Pro Pro Cys Val Trp Lys Val Cys Pro Ala Pro  
 85 90 95  
 Pro Trp Leu Val Thr Lys Arg Lys Gln Glu Thr Ser Asp Tyr  
 100 105 110

<210> 174  
 <211> 37  
 <212> PRT  
 <213> Conus nobilis

<220>  
 <221> PEPTIDE  
 <222> (1)..(37)  
 <223> Xaa at residues 3, 13, 14, 21, 23 and 24 may be Pro or hydroxy-Pr  
 o; Xaa at residues 17 and 25 may be Trp (D or L) or bromo-Trp (D  
 or L); Xaa at residue 33 may be Glu or Gla;

<220>  
 <221> PEPTIDE  
 <222> (1)..(37)  
 <223> Xaa at residue 37 may be Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Ty  
 r, O-sulpho-Tyr or O-phospho-Tyr

<400> 174  
 Phe Arg Xaa Ala Val Lys Ser Arg Ser Arg Arg Ala Xaa Xaa Cys Val  
 1 5 10 15  
 Xaa Lys Val Cys Xaa Ala Xaa Xaa Xaa Leu Val Thr Lys Arg Lys Gln  
 20 25 30

Phe Asn Lys Gly Gly

85

<210> 177  
 <211> 25  
 <212> PRT  
 <213> Conus parius

<220>  
 <221> PEPTIDE  
 <222> (1)..(25)  
 <223> Xaa at residues 1, 3, 15, 16 and 20 may be Pro or hydroxy-Pro

<400> 177  
 Xaa Xaa Phe Ser Cys Ser Gly Leu Arg Gly Gly Cys Val Leu Xaa Xaa  
 1 5 10 15  
 Asn Leu Arg Xaa Lys Phe Asn Lys Gly  
 20 25

<210> 178  
 <211> 390  
 <212> DNA  
 <213> Conus parius

<220>  
 <221> CDS  
 <222> (19)..(273)

<400> 178  
 gaattcgccc ttggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg 51  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met  
 1 5 10  
 atg gtg atg tgg att aca gcc cct ctg tct gaa ggt ggt aaa ccg aag 99  
 Met Val Met Trp Ile Thr Ala Pro Leu Ser Glu Gly Gly Lys Pro Lys  
 15 20 25  
 ctc ata att cgg ggt ttg gtg cca aac gac tta acc cca cag cgt atc 147  
 Leu Ile Ile Arg Gly Leu Val Pro Asn Asp Leu Thr Pro Gln Arg Ile  
 30 35 40  
 ttg cga agt ctg att tcc ggg cgt act tat ggc atc tat gat gcg aaa 195  
 Leu Arg Ser Leu Ile Ser Gly Arg Thr Tyr Gly Ile Tyr Asp Ala Lys  
 45 50 55  
 ccc ccc ttt agt tgt gca ggc ctc cga ggg ggt tgc gtc cta cct ccc 243  
 Pro Pro Phe Ser Cys Ala Gly Leu Arg Gly Gly Cys Val Leu Pro Pro  
 60 65 70 75  
 aat ctc agg cca aag ttc aag gaa ggt cga taaaaaaccc aagcgttcct 293  
 Asn Leu Arg Pro Lys Phe Lys Glu Gly Arg  
 80 85  
 agttatacga atgccagcaa ataaaagcag ttgtattgcg aaaaaaaaaa aaaaaaaaaa 353  
 gtactctgcg ttgttactcg agcttaaggg cgaattc 390

<210> 179  
 <211> 85  
 <212> PRT  
 <213> Conus parius

<400> 179  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Met Trp Ile

gct gac cta tgt atc cac aag att tgt cca cca cgg tat cac caa agc 245  
Ala Asp Leu Cys Ile His Lys Ile Cys Pro Pro Arg Tyr His Gln Ser  
60 65 70 75

caa caa taaaagacgt cagacaacca ccacaacttt agtatgacat cgttaatagg 301  
Gln Gln

acttcagcaa gtattttaac atcactgtgg ttgtgatgaa atcagtcgcc ttaaaagatt 361

ggctttttcc ttgtttaaga gttgtacttg tatcagcttt gcacttcgaa ataaagttga 421  
tgtgatgaac caaaaaaaaa aaaaaaaaaa agtactctgc gttgttactc gagcttaagg 481

gcgaattc 489

<210> 182

<211> 77

<212> PRT

<213> Conus planorbis

<400> 182

Met Gln Thr Ala Tyr Trp Val Met Met Met Met Met Val Trp Ile Thr  
1 5 10 15

Gly His Leu Ser Glu Gly Gly Lys Leu Lys Asp Ala Ile Arg Gly Leu  
20 25 30

Val Pro Asp Asp Leu Thr Ser Met Phe Ala Leu His Leu Pro Val Ser  
35 40 45

His Ser Arg Ser Ser Ser Asn Gly Leu Lys Arg Ala Asp Leu Cys Ile  
50 55 60

His Lys Ile Cys Pro Pro Arg Tyr His Gln Ser Gln Gln  
65 70 75

<210> 183

<211> 26

<212> PRT

<213> Conus planorbis

<220>

<221> PEPTIDE

<222> (1)..(26)

<223> Xaa at residues 18 and 19 may be Pro or hydroxy-Pro; Xaa at resid  
ue 21 may be Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-  
Tyr or O-phospho-Ty

<400> 183

Ser Ser Ser Asn Gly Leu Lys Arg Ala Asp Leu Cys Ile His Lys Ile  
1 5 10 15

Cys Xaa Xaa Arg Xaa His Gln Ser Gln Gln  
20 25

<210> 184

<211> 834

<212> DNA

<213> Conus pulicarius

<220>

<221> CDS

<222> (1)..(246)

<220>

<221> misc\_feature

<222> (1)..(834)

<223> n may be any nucleotide



<400> 184  
 atg cag acg gcc tac tgg gtg atg gtg atg atg atg atg gtg tgg gtt 48  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Met Val Trp Val  
 1 5 10 15  
  
 aca gcg cct gtg tct gaa ggt ggt aaa ttg agc gac gta att cgg ggt 96  
 Thr Ala Pro Val Ser Glu Gly Gly Lys Leu Ser Asp Val Ile Arg Gly  
 20 25 30  
  
 ttg gtg cca gac gac ata acc cca cag att att ttg caa agt ctg aat 144  
 Leu Val Pro Asp Asp Ile Thr Pro Gln Ile Ile Leu Gln Ser Leu Asn  
 35 40 45  
  
 gcc agt cgt cat gct tac aga cgt gtt cgt ctg aga gga cag ata tgt 192  
 Ala Ser Arg His Ala Tyr Arg Arg Val Arg Leu Arg Gly Gln Ile Cys  
 50 55 60  
  
 atc tgg aag gta tgt cca cca cta cta caa tgg ata cat cca tta gta 240  
 Ile Trp Lys Val Cys Pro Pro Leu Leu Gln Trp Ile His Pro Leu Val  
 65 70 75 80  
  
 aaa aga tgaatgacat cagacaaccg ccacaactgt agtacgacat cgттаacacg 296  
 Lys Arg  
  
 acttcagcaa atattctaac atcacagtgg gttgtgaaga natcggggttg gctttaaaaa 356  
 aaanaatggg ggntttttccc cntgggttta aaaaaanntn ggnnccgggn aannncccn 416  
 nntnnncccc ccccnntngg gagaaaaaaa aaannccnnt nnnnggggggn nnnncaaaaa 476  
 aaaaaaaaaa aaaaaaaaaa aaaaancccc nggggggngtg ntttnncccc ccnccccngg 536  
 ggggggggggn gnttttnnccc ccccccgng gggggggggg nttttntttt nngggggngc 596  
 ccccccccc cccnnncnnn nnaanaannn nngggggggg ggaanaaaaa nannnnnnnn 656  
 nnnnnnnnnn tttntcnnt cnnccgngnn gnnaaaaaaa aaanttnatt tntnnannnc 716  
 nncnnnccnn cnnennaccc nccccnnc ncnncanncn nagannanga ggggggggng 776  
 nnnnggngna nnnnnannnn nnnngaannng agngngnnn cncgncnncg cncnngnc 834  
  
 <210> 185  
 <211> 82  
 <212> PRT  
 <213> Conus pulicarius  
  
 <400> 185  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Met Val Trp Val  
 1 5 10 15  
  
 Thr Ala Pro Val Ser Glu Gly Gly Lys Leu Ser Asp Val Ile Arg Gly  
 20 25 30  
  
 Leu Val Pro Asp Asp Ile Thr Pro Gln Ile Ile Leu Gln Ser Leu Asn  
 35 40 45  
  
 Ala Ser Arg His Ala Tyr Arg Arg Val Arg Leu Arg Gly Gln Ile Cys  
 50 55 60  
  
 Ile Trp Lys Val Cys Pro Pro Leu Leu Gln Trp Ile His Pro Leu Val  
 65 70 75 80



<213> Conus pulicarius

<400> 188

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Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Met Val Trp Val
1          5          10          15

Thr Ala Pro Val Ser Glu Gly Gly Lys Leu Ser Asp Val Ile Arg Gly
          20          25          30

Leu Val Pro Asp Asp Leu Thr Pro Gln Ile Ile Leu Gln Ser Leu Asn
          35          40          45

Ala Ser Arg His Ala Tyr Arg Arg Val Arg Pro Arg Gly Gln Ile Cys
          50          55          60

Ile Trp Lys Val Cys Pro Pro Leu Leu Gln Trp Ile His Pro Leu Val
65          70          75          80
```

Lys Arg

<210> 189

<211> 26

<212> PRT

<213> Conus pulicarius

<220>

<221> PEPTIDE

<222> (1)..(26)

<223> Xaa at residues 3, 14, 15 and 22 may be Pro or hydroxy-Pro; Xaa at residues 10 and 19 may be Trp (D or L) or bromo-Trp (D or L)

<400> 189

```
Val Arg Xaa Arg Gly Gln Ile Cys Ile Xaa Lys Val Cys Xaa Xaa Leu
1          5          10          15

Leu Gln Xaa Ile His Xaa Leu Val Lys Arg
          20          25
```

<210> 190

<211> 471

<212> DNA

<213> Conus pulicarius

<220>

<221> CDS

<222> (1)..(246)

<400> 190

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atg cag acg gcc tac tgg gtg atg gtg atg atg atg atg gtg tgg gtt      48
Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Met Val Trp Val
1          5          10          15

aca gcg cct gtg tct gaa ggt ggt aaa ttg agc gac gta att cgg ggt      96
Thr Ala Pro Val Ser Glu Gly Gly Lys Leu Ser Asp Val Ile Arg Gly
          20          25          30

ttg gtg cca gac gac ata acc cca cag att atc ttg caa agt ctg aat      144
Leu Val Pro Asp Asp Ile Thr Pro Gln Ile Ile Leu Gln Ser Leu Asn
          35          40          45

gcc agt cgt cat gct tac aga cct gtt cgt ctg aga gga cag ata tgt      192
Ala Ser Arg His Ala Tyr Arg Pro Val Arg Leu Arg Gly Gln Ile Cys
          50          55          60

atc tgg aag gta tgt cca cca cta cta caa tgg ata cat cca tta gta      240
```

Ile Trp Lys Val Cys Pro Pro Leu Leu Gln Trp Ile His Pro Leu Val  
65 70 75 80

aaa aga tgaatgacat cagacaaccg ccacaactgt agtacgacat cgттаacacg 296  
Lys Arg

acttcagcaa atattttaac atcacagtgg ttgtgaagaa atcggttgct ttaaaaaaag 356

attgggtttt tccttgttta agagttgtac tgatatcagt tctgcactat gaaataaagc 416

tgatgtgacg aacaaaaaaaa aaaaaaaaaa aaagtactct gcgttgttac tcgag 471

<210> 191

<211> 82

<212> PRT

<213> Conus pulicarius

<400> 191

Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Met Val Trp Val  
1 5 10 15

Thr Ala Pro Val Ser Glu Gly Gly Lys Leu Ser Asp Val Ile Arg Gly  
20 25 30

Leu Val Pro Asp Asp Ile Thr Pro Gln Ile Ile Leu Gln Ser Leu Asn  
35 40 45

Ala Ser Arg His Ala Tyr Arg Pro Val Arg Leu Arg Gly Gln Ile Cys  
50 55 60

Ile Trp Lys Val Cys Pro Pro Leu Leu Gln Trp Ile His Pro Leu Val  
65 70 75 80

Lys Arg

<210> 192

<211> 27

<212> PRT

<213> Conus pulicarius

<220>

<221> PEPTIDE

<222> (1)..(27)

<223> Xaa at residues 1, 15, 16 and 23 may be Pro or hydroxy-Pro; Xaa at residues 11 and 20 may be Trp (D or L) or bromo-Trp (D or L)

<400> 192

Xaa Val Arg Leu Arg Gly Gln Ile Cys Ile Xaa Lys Val Cys Xaa Xaa  
1 5 10 15

Leu Leu Gln Xaa Ile His Xaa Leu Val Lys Arg  
20 25

<210> 193

<211> 375

<212> DNA

<213> Conus rattus

<220>

<221> CDS

<222> (1)..(282)

<400> 193

<400> 195  
Leu Cys Cys Ile Phe Ala Ile Leu Xaa Phe Cys Cys Leu

1 5 10

<210> 196  
 <211> 494  
 <212> DNA  
 <213> Conus striatus

<220>  
 <221> CDS  
 <222> (21)..(287)

<400> 196  
 gaattcgccc ttatggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg 53  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met  
 1 5 10

atg gtg tgg att aca gcc cct ctg tct gaa ggt ggt aaa ttg aac gac 101  
 Met Val Trp Ile Thr Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp  
 15 20 25

gta att cgg ggt ttg gtg cca cac atc tta acc cca cag cat atc ttg 149  
 Val Ile Arg Gly Leu Val Pro His Ile Leu Thr Pro Gln His Ile Leu  
 30 35 40

caa agt ctg att tcc cct ctt cgt tct aac aac ggt cgt tcg agt gga 197  
 Gln Ser Leu Ile Ser Pro Leu Arg Ser Asn Asn Gly Arg Ser Ser Gly  
 45 50 55

gca caa ata tgc atc tgg aag gta tgt cca cca tcc cca tgg aga caa 245  
 Ala Gln Ile Cys Ile Trp Lys Val Cys Pro Pro Ser Pro Trp Arg Gln  
 60 65 70 75

cca caa gaa atg atg aat gac atc aga caa ccg cca caa ctg 287  
 Pro Gln Glu Met Met Asn Asp Ile Arg Gln Pro Pro Gln Leu  
 80 85

tagtacgaca tcgttgatac gacttttagca aatatttttaa catcactgtg gttgtgaaga 347

aatcagttgc tttaaaagat tggatttttc cttgtttaag agttgtactg atatcagctc 407

tgcactatga aataaagctg atgtgacaaa caaaaaaaaaa aaaaaaaaaa gtactctgcg 467

ttgttactcg agcttaaggg cgaattc 494

<210> 197  
 <211> 89  
 <212> PRT  
 <213> Conus striatus

<400> 197  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1 5 10 15

Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
 20 25 30

Val Pro His Ile Leu Thr Pro Gln His Ile Leu Gln Ser Leu Ile Ser  
 35 40 45

Pro Leu Arg Ser Asn Asn Gly Arg Ser Ser Gly Ala Gln Ile Cys Ile  
 50 55 60

Trp Lys Val Cys Pro Pro Ser Pro Trp Arg Gln Pro Gln Glu Met Met  
 65 70 75 80

Asn Asp Ile Arg Gln Pro Pro Gln Leu  
85

<210> 198  
<211> 38  
<212> PRT  
<213> Conus striatus  
  
<220>  
<221> PEPTIDE  
<222> (1)..(38)  
<223> Xaa at residues 14 and 22 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residues 18, 19, 21, 25, 35 and 36 may be Pro or hydroxy-Pro; Xaa at residue 27 may be Glu or Gla

<400> 198  
Ser Asn Asn Gly Arg Ser Ser Gly Ala Gln Ile Cys Ile Xaa Lys Val  
1 5 10 15

Cys Xaa Xaa Ser Xaa Xaa Arg Gln Xaa Gln Xaa Met Met Asn Asp Ile  
20 25 30

Arg Gln Xaa Xaa Gln Leu  
35

<210> 199  
<211> 412  
<212> DNA  
<213> Conus striolatus

<220>  
<221> CDS  
<222> (1)..(240)

<400> 199  
atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg tgg att aca 48  
Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
1 5 10 15

gac cct ctg tct gaa ggt ggt aaa ttg aac gac gta att cgg ggt ttg 96  
Asp Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
20 25 30

gtg cca cgc atc tta acc cca cag cat acc ttg cga agt ccg act tcc 144  
Val Pro Arg Ile Leu Thr Pro Gln His Thr Leu Arg Ser Pro Thr Ser  
35 40 45

ctt ctt cgt tct aac acc ggt ggt tcg agt gga gca caa ata tgc atc 192  
Leu Leu Arg Ser Asn Thr Gly Gly Ser Ser Gly Ala Gln Ile Cys Ile  
50 55 60

tgg aag gta tgt cca cca tcc cca tgg aga cga tca caa gga aaa aga 240  
Trp Lys Val Cys Pro Pro Ser Pro Trp Arg Arg Ser Gln Gly Lys Arg  
65 70 75 80

tgaatgacgt cagacaagcg ccacaactgt agtacgacat cgttgatagc acttcagcaa 300

gtattttaac atcaactgtgg ttgtgaagaa atcagttgct ttaaaagatt ggatttttcc 360

ttgtttaaga gttgtactga tatcagctct gccctgtgaa ataaagctga tg 412

<210> 200  
<211> 80  
<212> PRT

<213> Conus striolatus

<400> 200

Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
1 5 10 15

Asp Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
20 25 30

Val Pro Arg Ile Leu Thr Pro Gln His Thr Leu Arg Ser Pro Thr Ser  
35 40 45

Leu Leu Arg Ser Asn Thr Gly Gly Ser Ser Gly Ala Gln Ile Cys Ile  
50 55 60

Trp Lys Val Cys Pro Pro Ser Pro Trp Arg Arg Ser Gln Gly Lys Arg  
65 70 75 80

<210> 201

<211> 26

<212> PRT

<213> Conus striolatus

<220>

<221> PEPTIDE

<222> (1)..(26)

<223> Xaa at residues 14 and 22 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residues 18, 19 and 21 may be Pro or hydroxy-Pro

<400> 201

Ser Asn Thr Gly Gly Ser Ser Gly Ala Gln Ile Cys Ile Xaa Lys Val  
1 5 10 15

Cys Xaa Xaa Ser Xaa Xaa Arg Arg Ser Gln  
20 25

<210> 202

<211> 412

<212> DNA

<213> Conus striolatus

<220>

<221> CDS

<222> (1)..(240)

<400> 202

atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg tgg att aca 48  
Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
1 5 10 15

gcc cct ctg tct gaa ggt ggt aaa ttg aac gac gta att cgg ggt ttg 96  
Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
20 25 30

gtg cca cac atc tta acc cca cag cat atc ttg caa agt ctg att tcc 144  
Val Pro His Ile Leu Thr Pro Gln His Ile Leu Gln Ser Leu Ile Ser  
35 40 45

cct ctt cgt tct aac aac ggt cgt tcg agt gga gca caa ata tgc atc 192  
Pro Leu Arg Ser Asn Asn Gly Arg Ser Ser Gly Ala Gln Ile Cys Ile  
50 55 60

tgg aag gta tgt cca cca tcc cca tgg aga cga tca caa gga aaa aga 240  
Trp Lys Val Cys Pro Pro Ser Pro Trp Arg Arg Ser Gln Gly Lys Arg  
65 70 75 80



tgaatgacgt cagacaagcg ccacaactgt agtacgacat cgttgatacg acttcagcaa 300  
 gtattttaac atcactgtgg ttgtgaagaa atcagttgct ttaaaagatt ggatttttcc 360  
 ttgtttaaga gttgtactga tatcagctct gcaactgtgaa ataaagctga tg 412

<210> 203  
 <211> 80  
 <212> PRT  
 <213> Conus striolatus

<400> 203  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1 5 10 15  
 Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
 20 25 30  
 Val Pro His Ile Leu Thr Pro Gln His Ile Leu Gln Ser Leu Ile Ser  
 35 40 45  
 Pro Leu Arg Ser Asn Asn Gly Arg Ser Ser Gly Ala Gln Ile Cys Ile  
 50 55 60  
 Trp Lys Val Cys Pro Pro Ser Pro Trp Arg Arg Ser Gln Gly Lys Arg  
 65 70 75 80

<210> 204  
 <211> 26  
 <212> PRT  
 <213> Conus striolatus  
 <220>  
 <221> PEPTIDE  
 <222> (1)..(26)  
 <223> Xaa at residues 14 and 22 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residues 18, 19 and 21 may be Pro or hydroxy-Pro

<400> 204  
 Ser Asn Asn Gly Arg Ser Ser Gly Ala Gln Ile Cys Ile Xaa Lys Val  
 1 5 10 15  
 Cys Xaa Xaa Ser Xaa Xaa Arg Arg Ser Gln  
 20 25

<210> 205  
 <211> 497  
 <212> DNA  
 <213> Conus striolatus

<220>  
 <221> CDS  
 <222> (21)..(257)

<400> 205  
 gaattcgccc ttatggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg 53  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met  
 1 5 10  
 atg gtg tgg att aaa gac cct ctg tct gaa ggt ggt aaa ttg aac gac 101  
 Met Val Trp Ile Lys Asp Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp  
 15 20 25

gta att cgg ggt ttg gtg cca cac atc tta acc cca cag cat atc ttg 149  
Val Ile Arg Gly Leu Val Pro His Ile Leu Thr Pro Gln His Ile Leu  
30 35 40

caa agt ctg att tcc cct ctt cgt tct aac aac ggt cgt tcg agt gga 197  
Gln Ser Leu Ile Ser Pro Leu Arg Ser Asn Asn Gly Arg Ser Ser Gly  
45 50 55

gca caa ata tgc aac tgg aag gta tgt cca cca tcc cca tgg aga cga 245  
Ala Gln Ile Cys Asn Trp Lys Val Cys Pro Pro Ser Pro Trp Arg Arg  
60 65 70 75

cca cga gga aaa tgatgaatga catcagacaa ccgccacaac tgtagtacga 297  
Pro Arg Gly Lys

cttcgttgat acgactttag caaatatttt aacatcactg tggttgtgaa gaaatcagtt 357

gctttaaaag attggatttt tccttgttta agagttgtac tgatatcagc tctgcactat 417

gaaataaagc tgatgtgaca aacaaaaaaaa aaaaaaaaaa aaagtactct gcgttgttac 477

tcgagcttaa gggcgaattc 497

<210> 206

<211> 79

<212> PRT

<213> Conus striolatus

<400> 206

Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Lys  
1 5 10 15

Asp Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
20 25 30

Val Pro His Ile Leu Thr Pro Gln His Ile Leu Gln Ser Leu Ile Ser  
35 40 45

Pro Leu Arg Ser Asn Asn Gly Arg Ser Ser Gly Ala Gln Ile Cys Asn  
50 55 60

Trp Lys Val Cys Pro Pro Ser Pro Trp Arg Arg Pro Arg Gly Lys  
65 70 75

<210> 207

<211> 26

<212> PRT

<213> Conus striolatus

<220>

<221> PEPTIDE

<222> (1)..(26)

<223> Xaa at residues 14 and 22 may be Trp (D or L) or bromo-Trp (D or L); Xaa at residues 18, 19, 21 and 25 may be Pro or hydroxy-Pro

<400> 207

Ser Asn Asn Gly Arg Ser Ser Gly Ala Gln Ile Cys Asn Xaa Lys Val  
1 5 10 15

Cys Xaa Xaa Ser Xaa Xaa Arg Arg Xaa Arg  
20 25

<210> 208

<211> 496

<212> DNA  
 <213> Conus striolatus

<220>  
 <221> CDS  
 <222> (21)..(287)

<400> 208  
 gaattcgccc ttatggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg 53  
                           Met Gln Thr Ala Tyr Trp Val Met Val Met Met  
                           1                          5                          10

atg gtg tgg att aca gcc cct ctg tct gaa ggt ggt aaa ttg aac gac 101  
 Met Val Trp Ile Thr Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp  
                           15                          20                          25

gta att cgg ggt ttg gtg cca cac atc tta acc cca cag cat atc ttg 149  
 Val Ile Arg Gly Leu Val Pro His Ile Leu Thr Pro Gln His Ile Leu  
                           30                          35                          40

caa agt ctg att tcc cct ctt cgt tct aac aac ggt cgt tcg agt gga 197  
 Gln Ser Leu Ile Ser Pro Leu Arg Ser Asn Asn Gly Arg Ser Ser Gly  
                           45                          50                          55

gca caa ata tgc atc tgg aag gta tgt cca cca tcc cca tgg aga caa 245  
 Ala Gln Ile Cys Ile Trp Lys Val Cys Pro Pro Ser Pro Trp Arg Gln  
                           60                          65                          70                          75

cca caa gaa atg atg aat gac atc aga caa ccg cca caa ctg 287  
 Pro Gln Glu Met Met Asn Asp Ile Arg Gln Pro Pro Gln Leu  
                           80                          85

tagtacgaca tcgttgatcac gacttttagca aatatttttaa catcactgtg gttgtgaaga 347

aatcagttgc tttaaaagat tggatttttc cttgtttaag agttgtactg atatcagctc 407  
 tgcactatga aataaagctg atgtgacaaa cgaaaaaaaaa aaaaaaaaaa aagtactctg 467

cgttgttact cgagcttaag ggcgaattc 496

<210> 209  
 <211> 89  
 <212> PRT  
 <213> Conus striolatus

<400> 209  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1                          5                          10                          15

Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
                           20                          25                          30

Val Pro His Ile Leu Thr Pro Gln His Ile Leu Gln Ser Leu Ile Ser  
                           35                          40                          45

Pro Leu Arg Ser Asn Asn Gly Arg Ser Ser Gly Ala Gln Ile Cys Ile  
                           50                          55                          60

Trp Lys Val Cys Pro Pro Ser Pro Trp Arg Gln Pro Gln Glu Met Met  
                           65                          70                          75                          80

Asn Asp Ile Arg Gln Pro Pro Gln Leu  
                           85

<210> 210

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<220>
<221>  PEPTIDE
<222>  (1)..(38)
<223>  Xaa at residues 14 and 22 may be Trp (D or L) or bromo-Trp (D or
      L); Xaa at residues 18, 19, 21, 25, 35 and 36 may be Pro or hydro
      xy-Pro; Xaa at residue 27 may be Glu or Gla
```

Arg Gln Xaa Xaa Gln Leu  
35

$\langle 220 \rangle$   
 $\langle 221 \rangle$  CDS  
 $\langle 222 \rangle$  (1) .. (234)

gcc tct ctg tct gaa ggt ggt aaa ccg aac gac gtc att cgg ggt ttt 96  
Ala Ser Leu Ser Glu Gly Gly Lys Pro Asn Asp Val Ile Arg Gly Phe  
20 25 30

gtg cca gac gac tta acc cca cag ctt atc ttg cga agt ctg att tcc 144  
Val Pro Asp Asp Leu Thr Pro Gln Leu Ile Leu Arg Ser Leu Ile Ser  
35 40 45

cgt cgt cgt tct gac aag gat gtt ggg aag aga atg gaa tgt tac tgg 192  
Arg Arg Arg Ser Asp Lys Asp Val Gly Lys Arg Met Glu Cys Tyr Trp  
50 55 60

aag gca tgt aga ccc acg cta tcg aga cga cat gat ctt ggg 234  
Lys Ala Cys Arg Pro Thr Leu Ser Arg Arg His Asp Leu Gly  
65 70 75

taaaagatga atgacgtcag acaacagcca caactatagt atgacatcgt taatacgaact 294

tcagcaaata ttttaacatc actgtggttg tgaagaaatc agttgcttta aaagattgga 354

tttttccgtg tttaagagtt gtactgatat cagctctgcc ctgtgaaata aagctgatg 413

<210>	212
<211>	78
<212>	PRT
<213>	Conus sulcatus

<400> 212  
Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr

1	5	10	15
Ala Ser Leu Ser Glu Gly Gly Lys Pro Asn Asp Val Ile Arg Gly Phe	20	25	30
Val Pro Asp Asp Leu Thr Pro Gln Leu Ile Leu Arg Ser Leu Ile Ser	35	40	45
Arg Arg Arg Ser Asp Lys Asp Val Gly Lys Arg Met Glu Cys Tyr Trp	50	55	60
Lys Ala Cys Arg Pro Thr Leu Ser Arg Arg His Asp Leu Gly	65	70	75

<210> 213  
 <211> 27  
 <212> PRT  
 <213> Conus sulcatus

<220>  
 <221> PEPTIDE  
 <222> (1)..(27)  
 <223> Xaa at residue 11 may be Glu or Gla; Xaa at residue 13 may be Tyr  
 , 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho  
 -Tyr; Xaa at residue 14 may be Trp (D or L) or bromo-Trp (D or L)  
 ; Xaa at residue 19 may be Pro or hydroxy-Pro

<400> 213
Arg Ser Asp Lys Asp Val Gly Lys Arg Met Xaa Cys Xaa Xaa Lys Ala
1 5 10 15
Cys Arg Xaa Thr Leu Ser Arg Arg His Asp Leu
20 25

<210> 214  
 <211> 472  
 <212> DNA  
 <213> Conus terebra

<220>  
 <221> CDS  
 <222> (1)..(234)

<400> 214	
atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg tgg att aca	48
Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr	
1 5 10 15	
gcc cct ctg tct gaa ggt gat aaa ttg aac gac gta att cgg ggt ttg	96
Ala Pro Leu Ser Glu Gly Asp Lys Leu Asn Asp Val Ile Arg Gly Leu	
20 25 30	
gtg cca gat aac tta gcc cca cag ctt gtt ttg caa agt ctg gat tcc	144
Val Pro Asp Asn Leu Ala Pro Gln Leu Val Leu Gln Ser Leu Asp Ser	
35 40 45	
cgt cgt cat cct cac ggc att cgt cag gat gga gcc caa ata tgt atc	192
Arg Arg His Pro His Gly Ile Arg Gln Asp Gly Ala Gln Ile Cys Ile	
50 55 60	
tgg aag ata tgt cca cca tcc cca tgg aaa cga ctt gga tct	234
Trp Lys Ile Cys Pro Pro Ser Pro Trp Lys Arg Leu Gly Ser	
65 70 75	

taagaaaaga aacaattgac gtcagacaac cgccacaact tgagtaacgac atcgtaata 294  
 caacttcagc aaatatgaaa ttttcagcat cactgtgggt gtgaagaaat cagttgcttt 354  
 aaaagattgg atttgcctt gtttaagagt tgtactgatg tcatctctgc actgtgaaat 414  
 aaagctgatg tgacaaacaa aaaaaaaaaa aaaaaagtac tctgcgttgt tactcgag 472

<210> 215  
 <211> 78  
 <212> PRT  
 <213> Conus terebra

<400> 215  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1 5 10 15  
 Ala Pro Leu Ser Glu Gly Asp Lys Leu Asn Asp Val Ile Arg Gly Leu  
 20 25 30  
 Val Pro Asp Asn Leu Ala Pro Gln Leu Val Leu Gln Ser Leu Asp Ser  
 35 40 45  
 Arg Arg His Pro His Gly Ile Arg Gln Asp Gly Ala Gln Ile Cys Ile  
 50 55 60  
 Trp Lys Ile Cys Pro Pro Ser Pro Trp Lys Arg Leu Gly Ser  
 65 70 75

<210> 216  
 <211> 28  
 <212> PRT  
 <213> Conus terebra

<220>  
 <221> PEPTIDE  
 <222> (1)..(28)  
 <223> Xaa at residues 2, 19, 20 and 22 may be Pro or hydroxy-Pro; Xaa at  
 residues 15 and 23 may be Trp (D or L) or bromo-Trp (D or L)

<400> 216  
 His Xaa His Gly Ile Arg Gln Asp Gly Ala Gln Ile Cys Ile Xaa Lys  
 1 5 10 15  
 Ile Cys Xaa Xaa Ser Xaa Xaa Lys Arg Leu Gly Ser  
 20 25

<210> 217  
 <211> 474  
 <212> DNA  
 <213> Conus terebra

<220>  
 <221> CDS  
 <222> (1)..(234)

<400> 217  
 atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg tgg att aca 48  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
 1 5 10 15  
 gcc cct ctg tct gaa ggt gat aaa ttg aac gac gta att cgg ggt ttg 96  
 Ala Pro Leu Ser Glu Gly Asp Lys Leu Asn Asp Val Ile Arg Gly Leu  
 20 25 30

gtg cca gat aac tta gcc cca cag ctt gtt ttg cat agt ctg gat tcc 144  
Val Pro Asp Asn Leu Ala Pro Gln Leu Val Leu His Ser Leu Asp Ser  
35 40 45

cgt cgt cat cct cac ggc att cgt cag gat gga gcc caa ata tgt atc 192  
Arg Arg His Pro His Gly Ile Arg Gln Asp Gly Ala Gln Ile Cys Ile  
50 55 60

tgg aag ata tgt cca cca tcc cca tgg aga cga ctt gga tct 234  
Trp Lys Ile Cys Pro Pro Ser Pro Trp Arg Arg Leu Gly Ser  
65 70 75

taagaaaaga aacaattgac gtcagacaac cgccacatct tgagtacgac atcgттаата 294

cgacttcagc aaatatgaaa ttttcagcat cactgtgggt gtgaagaaat cagttgcctt 354

aaaagattgg atttgtcctt gtttaagagt tgtactgatg tcactctctgc actatgaaat 414

aaagctgatg tgacaaacaa aaaaaaaaaa aaaaaaaagt actctgcggtt gttactcgag 474

<210> 218

<211> 78

<212> PRT

<213> Conus terebra

<400> 218

Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
1 5 10 15

Ala Pro Leu Ser Glu Gly Asp Lys Leu Asn Asp Val Ile Arg Gly Leu  
20 25 30

Val Pro Asp Asn Leu Ala Pro Gln Leu Val Leu His Ser Leu Asp Ser  
35 40 45

Arg Arg His Pro His Gly Ile Arg Gln Asp Gly Ala Gln Ile Cys Ile  
50 55 60

Trp Lys Ile Cys Pro Pro Ser Pro Trp Arg Arg Leu Gly Ser  
65 70 75

<210> 219

<211> 28

<212> PRT

<213> Conus terebra

<220>

<221> PEPTIDE

<222> (1)..(28)

<223> Xaa at residues 2, 19, 20 and 22 may be Pro or hydroxy-Pro; Xaa a  
t residues 15 and 23 may be Trp (D or L) or bromo-Trp (D or L)

<400> 219

His Xaa His Gly Ile Arg Gln Asp Gly Ala Gln Ile Cys Ile Xaa Lys  
1 5 10 15

Ile Cys Xaa Xaa Ser Xaa Xaa Arg Arg Leu Gly Ser  
20 25

<210> 220

<211> 485

<212> DNA

<213> Conus vexillum

<220>  
 <221> CDS  
 <222> (21)..(236)

<400> 220  
 gaattcgccc ttatggatcc atg cag atg gcc tac tgg gtg atg gtg atg atg 53  
                           Met Gln Met Ala Tyr Trp Val Met Val Met Met  
                           1                          5                          10

atg gtg tgg att aaa ggc cct gtg tcc gaa ggt ggt aaa ttg aac gac 101  
 Met Val Trp Ile Lys Gly Pro Val Ser Glu Gly Gly Lys Leu Asn Asp  
                           15                          20                          25

gta att cgg ggt ttg gtg cca gac gac ttg acc cca gtg tct gcc ttg 149  
 Val Ile Arg Gly Leu Val Pro Asp Asp Leu Thr Pro Val Ser Ala Leu  
                           30                          35                          40

cat cat ccg gtt tcc cat cgt cgg tct cac agc agt agt ttg tgg tgt 197  
 His His Pro Val Ser His Arg Arg Ser His Ser Ser Ser Leu Trp Cys  
                           45                          50                          55

gta tgt cca ttc agg gtg tgt cca cca tgc cat gga aga tgacctggtc 246  
 Val Cys Pro Phe Arg Val Cys Pro Pro Cys His Gly Arg  
                           60                          65                          70

ccaaaccaac aaaataacgt cagacaaccg ccacaacttt agtacgacat cccttaatac 306  
 gacttcagca agtatitttaa catcactatg gtgtgatgaa atcagttgct ttaaaagatt 366  
 ggattttttcc ttgtttaaga gttgcactga taacagccca gcagtatgaa ataaagtgtg 426  
 tgtggcaaaa aaaaaaaaaa aagtactctg cgttgttact cgagcttaag ggcgaattc 485

<210> 221  
 <211> 72  
 <212> PRT  
 <213> Conus vexillum

<400> 221  
 Met Gln Met Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Lys  
 1                          5                          10                          15

Gly Pro Val Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu  
                           20                          25                          30

Val Pro Asp Asp Leu Thr Pro Val Ser Ala Leu His His Pro Val Ser  
                           35                          40                          45

His Arg Arg Ser His Ser Ser Ser Leu Trp Cys Val Cys Pro Phe Arg  
                           50                          55                          60

Val Cys Pro Pro Cys His Gly Arg  
 65                          70

<210> 222  
 <211> 19  
 <212> PRT  
 <213> Conus vexillum

<220>  
 <221> PEPTIDE  
 <222> (1)..(19)  
 <223> Xaa at residue 7 may be Trp (D or L) or bromo-Trp (D or L); Xaa a

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t residues 11, 16 and 17 may be Pro or hydroxy-Pro

<400> 222

Ser His Ser Ser Ser Leu Xaa Cys Val Cys Xaa Phe Arg Val Cys Xaa  
1 5 10 15

Xaa Cys His

<210> 223

<211> 481

<212> DNA

<213> Conus vexillum

<220>

<221> CDS

<222> (21)..(257)

<400> 223

gaattcgccc ttatggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg 53  
Met Gln Thr Ala Tyr Trp Val Met Val Met Met  
1 5 10

atg gtg tgg att aca gcc cct ttg tct gaa ggt ggt aaa ctg aac gat 101  
Met Val Trp Ile Thr Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp  
15 20 25

gta att cgg ggt ttc gcg cta gat gac tta gcc caa agc cgt att atg 149  
Val Ile Arg Gly Phe Ala Leu Asp Asp Leu Ala Gln Ser Arg Ile Met  
30 35 40

caa agt ctg gtt ttc agt cat cag cct ctt cca acg gca tcc ata tgt 197  
Gln Ser Leu Val Phe Ser His Gln Pro Leu Pro Thr Ala Ser Ile Cys  
45 50 55

atc tgg aag ata tgt cca cca gac cca tgg aga cga cat gat ctt cag 245  
Ile Trp Lys Ile Cys Pro Pro Asp Pro Trp Arg Arg His Asp Leu Gln  
60 65 70 75

aaa agt aac aaa tgacgtcaga caaccgccac aacttgaata caacatcatt 297  
Lys Ser Asn Lys

aatacgactt cagcaaatat tttagcatca ctgtgattgt tcggaagtca gttgctttaa 357

aagattggat ttgtccctgt tgtattgatg tcaactctgc actatgaaat aaagctgatg 417

tgacaagcaa aaaaaaaaaa aaaaaaagta ctctgcgttg ttactcgagc ttaagggcga 477

attc 481

<210> 224

<211> 79

<212> PRT

<213> Conus vexillum

<400> 224

Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr  
1 5 10 15

Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Phe  
20 25 30

Ala Leu Asp Asp Leu Ala Gln Ser Arg Ile Met Gln Ser Leu Val Phe  
35 40 45

Ser His Gln Pro Leu Pro Thr Ala Ser Ile Cys Ile Trp Lys Ile Cys  
50 55 60

Pro Pro Asp Pro Trp Arg Arg His Asp Leu Gln Lys Ser Asn Lys  
65 70 75

<210> 225

<211> 38

<212> PRT

<213> Conus vexillum

<220>

<221> PEPTIDE

<222> (1)..(38)

<223> Xaa at residues 11, 14, 24, 25 and 27 may be Pro or hydroxy-Pro;  
Xaa at residues 20 and 28 may be Trp (D or L) or bromo-Trp (D or L)

<400> 225

Ile Met Gln Ser Leu Val Phe Ser His Gln Xaa Leu Xaa Thr Ala Ser  
1 5 10 15

Ile Cys Ile Xaa Lys Ile Cys Xaa Xaa Asp Xaa Xaa Arg Arg His Asp  
20 25 30

Leu Gln Lys Ser Asn Lys  
35

<210> 226

<211> 384

<212> DNA

<213> Conus vexillum

<220>

<221> CDS

<222> (1)..(285)

<400> 226

atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg gtg ggg ttc 48  
Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Val Gly Phe  
1 5 10 15

acc gtc gag agt cac gtc cat cag tct cac agt cct aca tcg cgc agc 96  
Thr Val Glu Ser His Val His Gln Ser His Ser Pro Thr Ser Arg Ser  
20 25 30

cat ggt gat gac tcc att cat gac aag acg att cat caa cat ctg ttt 144  
His Gly Asp Asp Ser Ile His Asp Lys Thr Ile His Gln His Leu Phe  
35 40 45

gcc cgt ctt cct ctg gag aac aac gac gac cat cgt tct gtg gat ctt 192  
Ala Arg Leu Pro Leu Glu Asn Asn Asp Asp His Arg Ser Val Asp Leu  
50 55 60

cct gca ggg act agc gca ggc gac atg aaa cca caa cgc cag aaa cgt 240  
Pro Ala Gly Thr Ser Ala Gly Asp Met Lys Pro Gln Arg Gln Lys Arg  
65 70 75 80

ttc tgc tgc atc ttt gcc ccg att ctt ttg ttc tgt tgt ttc ggt 285  
Phe Cys Cys Ile Phe Ala Pro Ile Leu Leu Phe Cys Cys Phe Gly  
85 90 95

taacagcaca aattacactg cactggccga ttgaaagaac tgcaataaac ggtaaagcaa 345

aaaaaaaaaa aaaaaaagta ctctgcgttg ttactcgag

384

<210> 227  
 <211> 95  
 <212> PRT  
 <213> Conus vexillum

<400> 227  
 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Val Gly Phe  
 1 5 10 15  
 Thr Val Glu Ser His Val His Gln Ser His Ser Pro Thr Ser Arg Ser  
 20 25 30  
 His Gly Asp Asp Ser Ile His Asp Lys Thr Ile His Gln His Leu Phe  
 35 40 45  
 Ala Arg Leu Pro Leu Glu Asn Asn Asp Asp His Arg Ser Val Asp Leu  
 50 55 60  
 Pro Ala Gly Thr Ser Ala Gly Asp Met Lys Pro Gln Arg Gln Lys Arg  
 65 70 75 80  
 Phe Cys Cys Ile Phe Ala Pro Ile Leu Leu Phe Cys Cys Phe Gly  
 85 90 95

<210> 228  
 <211> 14  
 <212> PRT  
 <213> Conus vexillum

<220>  
 <221> PEPTIDE  
 <222> (1)..(14)  
 <223> Xaa at residue 7 may be Pro or hydroxy-Pro

<400> 228  
 Phe Cys Cys Ile Phe Ala Xaa Ile Leu Leu Phe Cys Cys Phe  
 1 5 10

<210> 229  
 <211> 40  
 <212> PRT  
 <213> Conus tulipa

<400> 229  
 Glx Thr Asp Val Leu Leu Glu Ala Thr Leu Leu Thr Thr Pro Ala Pro  
 1 5 10 15  
 Glu Gln Arg Leu Phe Cys Phe Trp Lys Ser Cys Trp Pro Arg Pro Tyr  
 20 25 30  
 Pro Trp Arg Arg Arg Asp Leu Asn  
 35 40

<210> 230  
 <211> 40  
 <212> PRT  
 <213> Conus magus

<400> 230  
 Glx Thr Asp Val Leu Leu Asp Ala Thr Leu Leu Thr Thr Pro Ala Pro  
 1 5 10 15

Glu Gln Arg Leu Phe Cys Phe Trp Lys Ser Cys Trp Pro Arg Pro Tyr  
 20 25 30

Pro Trp Arg Arg Arg Asn Leu Asn  
 35 40

<210> 231  
 <211> 40  
 <212> PRT  
 <213> Conus geographus

<400> 231  
 Glx Thr Asp Val Leu Leu Glu Ala Thr Leu Leu Thr Thr Pro Ala Pro  
 1 5 10 15

Glu Gln Arg Leu Phe Cys Phe Trp Lys Ser Cys Thr Trp Arg Pro Tyr  
 20 25 30

Pro Trp Arg Arg Arg Asp Leu Asn  
 35 40

<210> 232  
 <211> 21  
 <212> PRT  
 <213> Conus tulipa

<400> 232  
 Leu Phe Cys Phe Trp Lys Ser Cys Trp Pro Arg Pro Tyr Pro Trp Arg  
 1 5 10 15

Arg Arg Asp Leu Asn  
 20

<210> 233  
 <211> 21  
 <212> PRT  
 <213> Conus magus

<400> 233  
 Leu Phe Cys Phe Trp Lys Ser Cys Trp Pro Arg Pro Tyr Pro Trp Arg  
 1 5 10 15

Arg Arg Asn Leu Asn  
 20

<210> 234  
 <211> 21  
 <212> PRT  
 <213> Conus geographus

<400> 234  
 Leu Phe Cys Phe Trp Lys Ser Cys Thr Trp Arg Pro Tyr Pro Trp Arg  
 1 5 10 15

Arg Arg Asp Leu Asn  
 20

<210> 235  
 <211> 19  
 <212> PRT  
 <213> Conus generalis

<400> 235  
 Ser His Ser Ser Ser Leu Trp Cys Val Cys Pro Phe Arg Val Cys Pro

1 5 10 15

Pro Cys His

<210> 236  
<211> 19  
<212> PRT  
<213> Conus vexillum

<400> 236  
Ser His Ser Ser Ser Leu Trp Cys Val Cys Pro Phe Arg Val Cys Pro  
1 5 10 15

Pro Cys His

<210> 237  
<211> 33  
<212> PRT  
<213> Conus flavidus

<400> 237  
His Asp His Gly Ile Arg Pro Lys Arg Val Asp Ile Cys Asn Trp Arg  
1 5 10 15

Ile Cys Ala Pro Asn Pro Leu Arg Arg His Asp Leu Lys Lys Gly Asn  
20 25 30

Asn

<210> 238  
<211> 33  
<212> PRT  
<213> Conus emaciatus

<400> 238  
His Thr His Gly Ile Arg Pro Lys Gly Asp Gly Ile Cys Ile Trp Lys  
1 5 10 15

Val Cys Pro Pro Asp Pro Trp Arg Arg His Arg Leu Lys Lys Arg Asn  
20 25 30

Asn

<210> 239  
<211> 33  
<212> PRT  
<213> Conus aurisiacus

<400> 239  
His Thr His Gly Ile Arg Pro Lys Gly Asp Gly Ile Cys Ile Trp Lys  
1 5 10 15

Val Cys Pro Pro Asp Pro Trp Arg Arg His His Leu Lys Lys Arg Asn  
20 25 30

Asn

<210> 240  
<211> 28  
<212> PRT  
<213> Conus terebra

<400> 240

His Pro His Gly Ile Arg Gln Asp Gly Ala Gln Ile Cys Ile Trp Lys  
 1 5 10 15  
 Ile Cys Pro Pro Ser Pro Trp Lys Arg Leu Gly Ser  
 20 25

<210> 241  
 <211> 28  
 <212> PRT  
 <213> Conus terebra

<400> 241  
 His Pro His Gly Ile Arg Gln Asp Gly Ala Gln Ile Cys Ile Trp Lys  
 1 5 10 15  
 Ile Cys Pro Pro Ser Pro Trp Arg Arg Leu Gly Ser  
 20 25

<210> 242  
 <211> 28  
 <212> PRT  
 <213> Conus litoglyphus

<400> 242  
 His Pro His Gly Ile Arg Gln Asp Gly Ala Gln Ile Cys Ile Trp Lys  
 1 5 10 15  
 Ile Cys Pro Pro Ser Pro Trp Lys Arg Arg Leu Gly Ser  
 20 25

<210> 243  
 <211> 28  
 <212> PRT  
 <213> Conus litoglyphus

<400> 243  
 His Pro His Gly Ile Arg Gln Asp Gly Ala Gln Ile Cys Ile Trp Lys  
 1 5 10 15  
 Ile Cys Pro Pro Ser Pro Trp Arg Arg Leu Gly Ser  
 20 25

<210> 244  
 <211> 23  
 <212> PRT  
 <213> Conus consors

<400> 244  
 Asp Arg Ser Asp Asn Gly Gly Ser Ser Gly Ala Gln Ile Cys Ile Trp  
 1 5 10 15  
 Lys Val Cys Pro Pro Ser Pro  
 20

<210> 245  
 <211> 25  
 <212> PRT  
 <213> Conus consors

<400> 245  
 Asp Arg Ser Asp Asn Gly Gly Ser Ser Gly Ala Gln Ile Cys Ile Trp  
 1 5 10 15  
 Lys Val Cys Pro Pro Ser Pro Trp Lys  
 20 25

<210> 246  
 <211> 28  
 <212> PRT  
 <213> Conus consors

<400> 246  
 Ala Arg Ser Asp Asn Gly Gly Ser Ser Gly Ala Gln Ile Cys Ile Trp  
 1 5 10 15  
 Lys Val Cys Pro Pro Ser Pro Trp Arg Arg Pro Gln  
 20 25

<210> 247  
 <211> 26  
 <212> PRT  
 <213> Conus striolatus

<400> 247  
 Ser Asn Thr Gly Gly Ser Ser Gly Ala Gln Ile Cys Ile Trp Lys Val  
 1 5 10 15  
 Cys Pro Pro Ser Pro Trp Arg Arg Ser Gln  
 20 25

<210> 248  
 <211> 26  
 <212> PRT  
 <213> Conus striolatus

<400> 248  
 Ser Asn Asn Gly Arg Ser Ser Gly Ala Gln Ile Cys Asn Trp Lys Val  
 1 5 10 15  
 Cys Pro Pro Ser Pro Trp Arg Arg Pro Arg  
 20 25

<210> 249  
 <211> 26  
 <212> PRT  
 <213> Conus striolatus

<400> 249  
 Ser Asn Asn Gly Arg Ser Ser Gly Ala Gln Ile Cys Ile Trp Lys Val  
 1 5 10 15  
 Cys Pro Pro Ser Pro Trp Arg Arg Ser Gln  
 20 25

<210> 250  
 <211> 38  
 <212> PRT  
 <213> Conus striolatus

<400> 250  
 Ser Asn Asn Gly Arg Ser Ser Gly Ala Gln Ile Cys Ile Trp Lys Val  
 1 5 10 15  
 Cys Pro Pro Ser Pro Trp Arg Gln Pro Gln Glu Met Met Asn Asp Ile  
 20 25 30  
 Arg Gln Pro Pro Gln Leu  
 35

<210> 251

<211> 38  
 <212> PRT  
 <213> Conus striatus

<400> 251  
 Ser Asn Asn Gly Arg Ser Ser Gly Ala Gln Ile Cys Ile Trp Lys Val  
 1 5 10 15  
 Cys Pro Pro Ser Pro Trp Arg Gln Pro Gln Glu Met Met Asn Asp Ile  
 20 25 30  
 Arg Gln Pro Pro Gln Leu  
 35

<210> 252  
 <211> 25  
 <212> PRT  
 <213> Conus aurisiacus

<400> 252  
 Leu His Ser Asp Ser Ser Asp Gln Lys Gly Ala Gln Ile Cys Ile Trp  
 1 5 10 15  
 Lys Val Cys Pro Pro Pro Pro Trp Arg  
 20 25

<210> 253  
 <211> 34  
 <212> PRT  
 <213> Conus aurisiacus

<400> 253  
 Leu His Ser Asp Ser Ser Asp Gln Lys Gly Gly Met Asn Ala Trp Thr  
 1 5 10 15  
 Gly Ala Gly Ala Gln Ile Cys Ile Trp Lys Val Cys Pro Pro Pro Pro  
 20 25 30

Trp Arg

<210> 254  
 <211> 37  
 <212> PRT  
 <213> Conus aurisiacus

<400> 254  
 Leu Arg Ser Asp Ser Ser Asp Gln Lys Gly Gly Met Asn Ala Ser Thr  
 1 5 10 15  
 Gly Ala Gly Ala Gln Ile Cys Ile Trp Lys Val Cys Pro Pro Ser Pro  
 20 25 30

Trp Arg Arg Thr Gln  
 35

<210> 255  
 <211> 28  
 <212> PRT  
 <213> Conus circumcisis

<400> 255  
 Leu Arg Ser Asp Ser Ser Gly Gln Lys Gly Ala Gln Ile Cys Ile Trp  
 1 5 10 15



Lys Val Cys Pro Leu Ser Pro Trp Arg Arg Pro Gln  
                   20                  25

<210> 256  
 <211> 32  
 <212> PRT  
 <213> Conus circumciscus

<400> 256  
 Leu Arg Ser Asp Ser Ser Gly Gln Lys Gly Ala Gln Ile Cys Ile Trp  
 1                  5                  10                  15

Lys Val Cys Pro Leu Ser Pro Trp Arg Arg Pro Gln Gly Lys Asp Glu  
                   20                  25                  30

<210> 257  
 <211> 28  
 <212> PRT  
 <213> Conus achatinus

<400> 257  
 Leu Arg Ser Asp Asn Gly Gly Ser Ser Gly Ala Gln Ile Cys Ile Trp  
 1                  5                  10                  15

Lys Val Cys Pro Pro Ser Pro Trp Arg Arg Pro Gln  
                   20                  25

<210> 258  
 <211> 22  
 <212> PRT  
 <213> Conus stercusmuscarum

<400> 258  
 Leu Gly Ile Gly Ser Ser Asp Gln Asn Ala Gln Ile Cys Ile Trp Lys  
 1                  5                  10                  15

Val Cys Pro Pro Ser Pro  
                   20

<210> 259  
 <211> 25  
 <212> PRT  
 <213> Conus consors

<400> 259  
 Asn Gly Ser Gly Ser Ser Asn Gln Lys Glu Ala Gln Leu Cys Ile Trp  
 1                  5                  10                  15

Lys Val Cys Pro Pro Ser Pro Trp Arg  
                   20                  25

<210> 260  
 <211> 25  
 <212> PRT  
 <213> Conus consors

<400> 260  
 Asn Gly Ser Gly Ser Ser Asn Gln Lys Glu Ala Gln Leu Cys Ile Trp  
 1                  5                  10                  15

Lys Val Cys Pro Pro Thr Pro Trp Arg  
                   20                  25

<210> 261

<211> 25  
 <212> PRT  
 <213> Conus magus

<400> 261  
 Asn Gly Ser Gly Ser Ser Asn Gln Lys Glu Ala Gln Leu Cys Ile Trp  
 1 5 10 15  
 Lys Val Cys Pro Pro Ser Pro Trp Arg  
 20 25

<210> 262  
 <211> 25  
 <212> PRT  
 <213> Conus nobilis

<400> 262  
 Asn Gly Ser Gly Ser Ser Asn Gln Lys Glu Ala Gln Leu Cys Ile Trp  
 1 5 10 15  
 Lys Val Cys Pro Pro Thr Pro Trp Arg  
 20 25

<210> 263  
 <211> 27  
 <212> PRT  
 <213> Conus sulcatus

<400> 263  
 Arg Ser Asp Lys Asp Val Gly Lys Arg Met Glu Cys Tyr Trp Lys Ala  
 1 5 10 15  
 Cys Arg Pro Thr Leu Ser Arg Arg His Asp Leu  
 20 25

<210> 264  
 <211> 40  
 <212> PRT  
 <213> Conus bocki

<400> 264  
 Arg Ser Asp Lys Asp Asp Pro Gly Gly Gln Glu Cys Tyr Trp Asn Val  
 1 5 10 15  
 Cys Ala Pro Asn Gln Gly Asp His Met Ile Leu Arg Lys Lys Met Asn  
 20 25 30  
 Asp Asp Arg Gln Pro Pro Gln Leu  
 35 40

<210> 265  
 <211> 19  
 <212> PRT  
 <213> Conus betulinus

<400> 265  
 Arg Ser Asp Ser Asp Val Arg Glu Val Pro Val Cys Ser Trp Lys Ile  
 1 5 10 15  
 Cys Pro Pro

<210> 266  
 <211> 22  
 <212> PRT

<213> Conus loroisii

<400> 266

Arg Ser Asp Ser Asp Val Arg Glu Val Tyr Ile Leu Cys Ile Trp Lys  
1 5 10 15

Ile Cys Pro Pro Leu Pro  
20

<210> 267

<211> 32

<212> PRT

<213> Conus gladiator

<400> 267

His Pro Ala Asn Val Arg Gln Gln Gly Lys Ile Cys Val Trp Lys Val  
1 5 10 15

Cys Pro Pro Trp Pro Val Arg Ser Pro Gly Pro Gln Pro Lys Asn Lys  
20 25 30

<210> 268

<211> 32

<212> PRT

<213> Conus gladiator

<400> 268

His Pro Ala Asn Val Arg Gln Gln Gly Lys Ile Cys Val Trp Lys Val  
1 5 10 15

Cys Pro Pro Ser Pro Val Arg Ser Pro Gly Pro Leu Pro Lys Asn Lys  
20 25 30

<210> 269

<211> 41

<212> PRT

<213> Conus musicus

<400> 269

Gly Met Gly Pro Gly Asp Leu Ser Leu Gln Lys Met Phe Pro Ser Leu  
1 5 10 15

Ala Leu Gly Pro Gly Gly Asp Val Ile Cys Arg Trp Lys Val Cys Pro  
20 25 30

Pro Thr Pro Trp Lys Arg Leu Ile Lys  
35 40

<210> 270

<211> 49

<212> PRT

<213> Conus musicus

<400> 270

Gly Met Val Pro Gly Asp Leu Ala Leu Gln Tyr Leu Phe Pro Ser Leu  
1 5 10 15

Ala Phe Asn Pro Pro Asp Ile Cys Thr Trp Lys Val Cys Pro Pro Pro  
20 25 30

Pro Trp Arg Arg Pro Lys Lys Ile Thr Asp Val Gly Gln Pro Pro Gln  
35 40 45

Leu

<210> 271  
 <211> 49  
 <212> PRT  
 <213> Conus musicus

<400> 271  
 Gly Met Val Pro Gly Asp Leu Val Leu Gln Tyr Leu Phe Pro Ser Leu  
 1 5 10 15  
 Ala Phe Ser Pro Pro Asp Ile Cys Thr Trp Lys Val Cys Pro Pro Pro  
 20 25 30  
 Pro Trp Arg Arg Pro Lys Lys Ile Thr Asp Val Arg Gln Pro Pro Gln  
 35 40 45

Leu

<210> 272  
 <211> 49  
 <212> PRT  
 <213> Conus musicus

<400> 272  
 Gly Met Val Pro Gly Asp Leu Val Leu Gln Tyr Leu Phe Pro Ser Leu  
 1 5 10 15  
 Ala Phe Asn Pro Pro Asp Ile Cys Thr Trp Lys Val Cys Pro Pro Pro  
 20 25 30  
 Pro Trp Arg Arg Pro Lys Lys Ile Thr Asp Val Arg Gln Pro Pro Gln  
 35 40 45

Leu

<210> 273  
 <211> 29  
 <212> PRT  
 <213> Conus miles

<400> 273  
 Glx Gln Asp Gln Ser Pro His His Val Cys Cys Ala Ile Gly Pro Val  
 1 5 10 15  
 Leu Pro Phe Cys Cys Val Ser Trp Leu His Lys Leu His  
 20 25

<210> 274  
 <211> 14  
 <212> PRT  
 <213> Conus miles

<400> 274  
 Leu Cys Cys Ile Phe Ala Pro Ile Leu Trp Phe Cys Cys His  
 1 5 10

<210> 275  
 <211> 13  
 <212> PRT  
 <213> Conus rattus

<400> 275  
 Leu Cys Cys Ile Phe Ala Ile Leu Trp Phe Cys Cys Leu  
 1 5 10



&lt;400&gt; 281

Pro Pro Phe Ser Cys Ser Gly Leu Arg Gly Gly Cys Val Leu Pro Pro  
 1 5 10 15

Asn Leu Arg Pro Lys Phe Asn Lys Gly  
 20 25

&lt;210&gt; 282

&lt;211&gt; 24

&lt;212&gt; PRT

&lt;213&gt; Conus parius

&lt;400&gt; 282

Pro Pro Phe Ser Cys Ala Gly Leu Arg Gly Gly Cys Val Leu Pro Pro  
 1 5 10 15

Asn Leu Arg Pro Lys Phe Lys Glu  
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&lt;210&gt; 283

&lt;211&gt; 29

&lt;212&gt; PRT

&lt;213&gt; Conus wittigi

&lt;400&gt; 283

Ser Ser Asp Gly Ser Asp Pro Lys Ala Lys Lys Gln Cys Met Trp Lys  
 1 5 10 15

Arg Cys Ile Pro Asp Gln Ser Arg Leu Glu Glu Asp Glu  
 20 25

&lt;210&gt; 284

&lt;211&gt; 30

&lt;212&gt; PRT

&lt;213&gt; Conus cinereus

&lt;400&gt; 284

Ser Ser Asp Gly Lys Ala Lys Lys Gln Cys Ala Trp Lys Thr Cys Val  
 1 5 10 15

Pro Thr Gln Trp Arg Arg Arg Asp Leu Lys Glu Lys Asp Glu  
 20 25 30

&lt;210&gt; 285

&lt;211&gt; 30

&lt;212&gt; PRT

&lt;213&gt; Conus cinereus

&lt;400&gt; 285

Ser Ser Asp Gly Lys Ala Lys Arg Asn Cys Phe Trp Lys Ala Cys Val  
 1 5 10 15

Pro Glu Gln Trp Arg Gln Arg Asp Pro Lys Glu Lys Asp Glu  
 20 25 30

&lt;210&gt; 286

&lt;211&gt; 30

&lt;212&gt; PRT

&lt;213&gt; Conus cinereus

&lt;400&gt; 286

Ser Ser Asp Gly Lys Ala Lys Arg Asn Cys Phe Trp Lys Ala Cys Val  
 1 5 10 15

Pro Glu Gln Trp Arg Gln Arg Asp Leu Lys Glu Lys Asp Glu  
                   20                  25                  30

<210> 287  
 <211> 37  
 <212> PRT  
 <213> Conus nobilis

<400> 287  
 Phe Arg Pro Ala Val Lys Ser Arg Ser Arg Arg Ala Pro Pro Cys Val  
 1                  5                  10                  15  
 Trp Lys Val Cys Pro Ala Pro Pro Trp Leu Val Thr Lys Arg Lys Gln  
                   20                  25                  30

Glu Thr Ser Asp Tyr  
                   35

<210> 288  
 <211> 37  
 <212> PRT  
 <213> Conus nobilis

<400> 288  
 Phe Arg Pro Ala Val Lys Ser Arg Ser Arg Arg Ala Pro Pro Cys Val  
 1                  5                  10                  15  
 Trp Lys Val Cys Pro Ala Pro Pro Trp Leu Val Thr Lys Arg Lys Gln  
                   20                  25                  30

Glu Thr Ser Asp Tyr  
                   35

<210> 289  
 <211> 37  
 <212> PRT  
 <213> Conus miles

<400> 289  
 Phe Arg Pro Ala Met Gln Ser Arg Ser Gly Gly Met Ser Leu Cys Leu  
 1                  5                  10                  15  
 Trp Lys Val Cys Pro Ala Ala Pro Trp Leu Val Ala Lys Arg Lys Gln  
                   20                  25                  30

Glu Thr Ser Asp Tyr  
                   35

<210> 290  
 <211> 21  
 <212> PRT  
 <213> Conus tulipa

<400> 290  
 His Phe Asn Ser Val Val Pro Thr Val Tyr Ile Cys Met Trp Lys Val  
 1                  5                  10                  15

Cys Pro Pro Ser Pro  
                   20

<210> 291  
 <211> 21  
 <212> PRT

20250606 10:00:00

<213> *Conus purpurascens*

<400> 291

Glx Ser Glu Glu Glu Lys Ile Cys Leu Trp Lys Ile Cys Pro Pro Pro  
1 5 10 15

Pro Trp Arg Arg Ser  
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<210> 292

<211> 21

<212> PRT

<213> *Conus purpurascens*

<400> 292

Glu Ser Asn Gly Val Glu Ile Cys Met Trp Lys Val Cys Pro Pro Ser  
1 5 10 15

Pro Trp Arg Arg Ser  
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<210> 293

<211> 38

<212> PRT

<213> *Conus vexillum*

<400> 293

Ile Met Gln Ser Leu Val Phe Ser His Gln Pro Leu Pro Thr Ala Ser  
1 5 10 15

Ile Cys Ile Trp Lys Ile Cys Pro Pro Asp Pro Trp Arg Arg His Asp  
20 25 30

Leu Gln Lys Ser Asn Lys  
35

<210> 294

<211> 38

<212> PRT

<213> *Conus muriculatus*

<400> 294

Ile Met Gln Ser Leu Val Phe Ser His Gln Pro Leu Pro Thr Ala Ser  
1 5 10 15

Ile Cys Ile Trp Lys Ile Cys Pro Pro Asp Pro Trp Arg Arg His Asp  
20 25 30

Leu Gln Lys Ser Asn Lys  
35

<210> 295

<211> 26

<212> PRT

<213> *Conus pulicarius*

<400> 295

Val Arg Leu Arg Gly Gln Ile Cys Ile Trp Lys Val Cys Pro Pro Leu  
1 5 10 15

Leu Gln Trp Ile His Pro Leu Val Lys Arg  
20 25

<210> 296



<211> 26  
 <212> PRT  
 <213> Conus pulicarius

<400> 296  
 Val Arg Pro Arg Gly Gln Ile Cys Ile Trp Lys Val Cys Pro Pro Leu  
 1 5 10 15  
 Leu Gln Trp Ile His Pro Leu Val Lys Arg  
 20 25

<210> 297  
 <211> 27  
 <212> PRT  
 <213> Conus pulicarius

<400> 297  
 Pro Val Arg Leu Arg Gly Gln Ile Cys Ile Trp Lys Val Cys Pro Pro  
 1 5 10 15  
 Leu Leu Gln Trp Ile His Pro Leu Val Lys Arg  
 20 25

<210> 298  
 <211> 30  
 <212> PRT  
 <213> Conus mustelinus

<400> 298  
 Leu Val Ser His Thr Ser Ser Lys Tyr Pro Gly Val Thr Phe Cys Pro  
 1 5 10 15  
 Trp Lys Val Cys Pro Pro Ala Pro Trp Arg Ile Leu Gly Val  
 20 25 30

<210> 299  
 <211> 22  
 <212> PRT  
 <213> Conus baileyi

<400> 299  
 His Ser Asp Ser Ile Ile Leu Arg Gly Leu Cys Ile Trp Lys Val Cys  
 1 5 10 15  
 Glu Pro Pro Pro Gln Arg  
 20

<210> 300  
 <211> 26  
 <212> PRT  
 <213> Conus planorbis

<400> 300  
 Ser Ser Ser Asn Gly Leu Lys Arg Ala Asp Leu Cys Ile His Lys Ile  
 1 5 10 15  
 Cys Pro Pro Arg Tyr His Gln Ser Gln Gln  
 20 25

<210> 301  
 <211> 36  
 <212> PRT  
 <213> Conus litteratus

<400> 301  
 His Arg Val Phe His Leu Asp Asn Thr Tyr Leu Lys Ile Pro Ile Cys  
 1 5 10 15  
 Ala Trp Lys Val Cys Pro Pro Thr Pro Trp Arg Arg Arg Asp Leu Lys  
 20 25 30  
 Lys Arg Asn Lys  
 35

<210> 302  
 <211> 50  
 <212> PRT  
 <213> Conus litteratus

<400> 302  
 Ser Pro Val Ser Thr Pro Tyr Pro Glu Phe His Leu Asp Glu Pro Tyr  
 1 5 10 15  
 Leu Lys Ile Pro Val Cys Ile Trp Lys Ile Cys Pro Pro Asn Leu Leu  
 20 25 30  
 Arg Arg Arg Asp Leu Lys Lys Arg Asn Lys Val Arg Gln Thr Thr Ala  
 35 40 45

Thr Thr  
 50  
 <210> 303  
 <211> 26  
 <212> PRT  
 <213> Conus coronatus  
 <400> 303  
 Leu Ser Asp Gly Arg Asp Trp Thr Gly Tyr Ile Cys Ile Trp Lys Ala  
 1 5 10 15  
 Cys Pro Arg Pro Pro Trp Ile Pro Pro Lys  
 20 25

<210> 304  
 <211> 29  
 <212> PRT  
 <213> Conus chaldaeus

<400> 304  
 Leu Ser Glu Gly Arg Asn Ser Thr Val His Ile Cys Met Trp Lys Val  
 1 5 10 15  
 Cys Pro Pro Pro Pro Trp Arg Arg Pro His Gly Gln Arg  
 20 25

<210> 305  
 <211> 29  
 <212> PRT  
 <213> Conus chaldaeus

<400> 305  
 Leu Ser Glu Gly Arg Asn Ser Thr Val His Ile Cys Thr Trp Lys Val  
 1 5 10 15  
 Cys Pro Pro Pro Pro Trp Arg Arg Pro His Gly Gln Arg  
 20 25

<210> 306

<211> 13  
 <212> PRT  
 <213> Unknown

<220>  
 <223> unknown Conus species

<400> 306  
 Glx Cys Met Trp Lys Arg Cys Ile Pro Asp Gln Ser Arg  
 1 5 10

<210> 307  
 <211> 15  
 <212> PRT  
 <213> Unknown

<220>  
 <223> unknown Conus species

<400> 307  
 Val Asp Ile Cys Asn Trp Arg Ile Cys Ala Pro Asn Pro Leu Arg  
 1 5 10 15

<210> 308  
 <211> 13  
 <212> PRT  
 <213> Conus geographus

<220>  
 <221> PEPTIDE  
 <222> (1)..(13)  
 <223> Xaa may be Trp (D or L)

<400> 308  
 Leu Cys Phe Xaa Lys Ser Cys Arg Pro Tyr Pro Trp Arg  
 1 5 10

<210> 309  
 <211> 16  
 <212> PRT  
 <213> Conus magus

<220>  
 <221> PEPTIDE  
 <222> (1)..(16)  
 <223> Xaa may be Trp (D or L)

<400> 309  
 Leu Phe Cys Phe Xaa Trp Lys Ser Cys Trp Pro Arg Pro Tyr Trp Arg  
 1 5 10 15

<210> 310  
 <211> 16  
 <212> PRT  
 <213> Conus magus

<220>  
 <221> PEPTIDE  
 <222> (1)..(16)  
 <223> Xaa may be Trp (D or L)

<400> 310  
 Leu Phe Cys Phe Xaa Lys Ser Cys Trp Pro Arg Pro Tyr Pro Trp Arg  
 1 5 10 15

<210> 311  
 <211> 15  
 <212> PRT  
 <213> Conus magus

<220>  
 <221> PEPTIDE  
 <222> (1)..(15)  
 <223> Xaa may be Phe (D or L)

<400> 311  
 Leu Xaa Cys Phe Trp Lys Ser Cys Trp Pro Arg Pro Tyr Trp Arg  
 1 5 10 15

<210> 312  
 <211> 15  
 <212> PRT  
 <213> Conus magus

<220>  
 <221> PEPTIDE  
 <222> (1)..(15)  
 <223> Xaa at residue 2 may be Phe (D or L); Xaa at residue 5 may be Trp  
 (D or L)

<400> 312  
 Leu Xaa Cys Phe Xaa Lys Ser Cys Trp Pro Arg Pro Tyr Trp Arg  
 1 5 10 15

<210> 313  
 <211> 11  
 <212> PRT  
 <213> Conus magus

<220>  
 <221> PEPTIDE  
 <222> (1)..(11)  
 <223> Xaa may be Phe (D or L)

<400> 313  
 Leu Xaa Cys Phe Trp Lys Ser Cys Trp Pro Arg  
 1 5 10

<210> 314  
 <211> 11  
 <212> PRT  
 <213> Conus magus

<220>  
 <221> PEPTIDE  
 <222> (1)..(11)  
 <223> Xaa may be Trp (D or L)

<400> 314  
 Leu Phe Cys Phe Xaa Lys Ser Cys Trp Pro Arg  
 1 5 10

<210> 315  
 <211> 11  
 <212> PRT  
 <213> Conus magus

<220>

<221> PEPTIDE  
 <222> (1)..(11)  
 <223> Xaa at residue 2 may be Phe (D or L); Xaa at residue 5 may be Trp  
 (D or L)

<400> 315  
 Leu Xaa Cys Phe Xaa Lys Ser Cys Trp Pro Arg  
 1 5 10

<210> 316  
 <211> 9  
 <212> PRT  
 <213> Conus magus

<220>  
 <221> PEPTIDE  
 <222> (1)..(9)  
 <223> Xaa may be Phe (D or L)  
 <400> 316  
 Leu Xaa Cys Phe Trp Lys Ser Cys Trp  
 1 5

<210> 317  
 <211> 9  
 <212> PRT  
 <213> Conus magus

<220>  
 <221> PEPTIDE  
 <222> (1)..(9)  
 <223> Xaa may be Trp (D or L)

<400> 317  
 Leu Phe Cys Phe Xaa Lys Ser Cys Trp  
 1 5

<210> 318  
 <211> 9  
 <212> PRT  
 <213> Conus magus

<220>  
 <221> PEPTIDE  
 <222> (1)..(9)  
 <223> Xaa at residue 2 may be Phe (D or L); Xaa at residue 5 may be Trp  
 (D or L)

<400> 318  
 Leu Xaa Cys Phe Xaa Lys Ser Cys Trp  
 1 5

<210> 319  
 <211> 10  
 <212> PRT  
 <213> Conus magus

<220>  
 <221> PEPTIDE  
 <222> (1)..(10)  
 <223> Xaa may be Trp (D or L)

<400> 319  
 Phe Cys Phe Xaa Lys Ser Cys Trp Pro Arg  
 1 5 10

<210> 320  
 <211> 10  
 <212> PRT  
 <213> Conus magus

<220>  
 <221> PEPTIDE  
 <222> (1)..(10)  
 <223> Xaa may be Lys (D or L)

<400> 320  
 Phe Cys Phe Trp Xaa Ser Cys Trp Pro Arg  
 1 5 10

<210> 321  
 <211> 10  
 <212> PRT  
 <213> Conus magus

<220>  
 <221> PEPTIDE  
 <222> (1)..(10)  
 <223> Xaa may be Trp (D or L)

<400> 321  
 Phe Cys Phe Xaa Phe Ser Cys Trp Pro Arg  
 1 5 10

<210> 322  
 <211> 10  
 <212> PRT  
 <213> Conus magus

<400> 322  
 Phe Cys Phe Trp Lys Ser Cys Trp Pro Arg  
 1 5 10

<210> 323  
 <211> 21  
 <212> PRT  
 <213> Conus purpurascens

<220>  
 <221> PEPTIDE  
 <222> (1)..(21)  
 <223> Xaa may be Trp (D or L)

<400> 323  
 Glu Ser Asn Gly Val Glu Ile Cys Met Xaa Lys Val Cys. Pro Pro Ser  
 1 5 10 15

Pro Trp Arg Arg Ser  
 20

<210> 324  
 <211> 14  
 <212> PRT  
 <213> Conus striatus

<220>  
 <221> PEPTIDE  
 <222> (1)..(14)  
 <223> Xaa may be Trp (D or L)

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<400> 324  
Met Glu Cys Tyr Xaa Lys Ala Cys Arg Pro Thr Leu Ser Arg  
1 5 10

<210> 325  
<211> 16  
<212> PRT  
<213> Conus striatus

<220>  
<221> PEPTIDE  
<222> (1)..(16)  
<223> Xaa may be Trp (D or L)

<400> 325  
Phe Glu Leu Lys Cys Ile Xaa Lys Phe Cys Thr Ile Tyr Pro Ser Arg  
1 5 10 15

<210> 326  
<211> 18  
<212> PRT  
<213> Conus striatus

<220>  
<221> PEPTIDE  
<222> (1)..(18)  
<223> Xaa may be Trp (D or L)

<400> 326  
Phe Glu Leu Lys Cys Ile Xaa Lys Phe Cys Thr Ile Tyr Pro Ser Arg  
1 5 10 15

Pro Phe

<210> 327  
<211> 14  
<212> PRT  
<213> Conus tulipa

<220>  
<221> PEPTIDE  
<222> (1)..(14)  
<223> Xaa may be Trp (D or L)

<400> 327  
Thr Val Tyr Ile Cys Met Xaa Lys Val Cys Pro Pro Ser Pro  
1 5 10

<210> 328  
<211> 22  
<212> PRT  
<213> Conus aurisiacus

<220>  
<221> PEPTIDE  
<222> (1)..(22)  
<223> Xaa may be Trp (D or L)

<400> 328  
Ser Asp Ser Ser Asp Gln Lys Ala Gln Ile Cys Ile Xaa Lys Val Cys  
1 5 10 15

Pro Pro Pro Pro Trp Arg

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<210> 329
<211> 16
<212> PRT
<213> Conus consors
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<400> 329  
Gly Ala Gln Ile Cys Ile Xaa Lys Val Cys Pro Pro Ser Pro Trp Arg  
1 5 10 15

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<220>
<221>    PEPTIDE
<222>    (1)..(30)
<223>    Xaa may be Trp (D or L)
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<400> 330  
Met Phe Pro Ser Leu Ala Leu Gly Pro Gly Gly Asp Val Ile Cys Arg  
1 5 10 15

Xaa Lys Val Cys Pro Pro Thr Pro Trp Lys Arg Leu Ile Lys  
20 25 30

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<210> 331
<211> 24
<212> PRT
<213> Conus flavidus
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<220>
<221>    PEPTIDE
<222>    (1)..(24)
<223>    Xaa may be Trp (D or L)
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<400> 331
Val Asp Ile Cys Asn Xaa Arg Ile Cys Ala Pro Asn Pro Leu Arg Arg
1          5          10          15
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His Asp Leu Lys Lys Gly Asn Asn  
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<210> 332
<211> 15
<212> PRT
<213> Conus flavidus
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<220>
<221>  PEPTIDE
<222>  (1)..(15)
<223>  Xaa may be Trp (D or L)
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<400> 332
Val Asp Ile Cys Asn Xaa Arg Ile Cys Ala Pro Asn Pro Leu Arg
1          5          10          15
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1970	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022



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<400> 336
Ser Leu Trp Cys Val Cys Pro Xaa Arg Val Cys Pro Pro Cys His
1          5          10          15
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<210> 337  
 <211> 15  
 <212> PRT  
 <213> Conus generalis

<220>  
 <221> PEPTIDE  
 <222> (1)..(15)  
 <223> Xaa may be Phe (D or L)

<220>  
 <221> DISULFID  
 <222> (6)..(14)

<400> 337  
 Ser Leu Trp Cys Val Cys Pro Xaa Arg Val Cys Pro Pro Cys His  
 1 5 10 15

<210> 338  
 <211> 6  
 <212> PRT  
 <213> Conus magus

<220>  
 <221> PEPTIDE  
 <222> (1)..(6)  
 <223> Xaa at residues 2 and 5 may be any amino acid; Xaa at residue 3 may be Trp (D or L) or bromo-Trp (D or L)

<400> 338  
 Cys Xaa Xaa Lys Xaa Cys  
 1 5

<210> 339  
 <211> 6  
 <212> PRT  
 <213> Conus generalis

<220>  
 <221> PEPTIDE  
 <222> (1)..(6)  
 <223> Xaa may be Phe (D or L)

<400> 339  
 Cys Pro Xaa Arg Val Cys  
 1 5

<210> 340  
 <211> 21  
 <212> PRT  
 <213> Conus ebraeus

<400> 340

Leu Ser Gly Gly Thr Tyr Ser Arg Val Asp Thr Cys Ile Trp Lys Val  
 1 5 10 15

Cys Pro Gln Ser Pro  
 20

125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999